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DIVISION OF WATER
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LEONARD K. PETERS
SECRETARY

FACT SHEET

**KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT TO DISCHARGE FROM A SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEM INTO WATERS OF
THE COMMONWEALTH**

KPDES No.: KYG200000 Permit Writer: Abigail Rains Date: March 1, 2010
AI No.: 35050

1. COVERAGE UNDER THIS GENERAL PERMIT

The Kentucky Division of Water (DOW) is reissuing the general permit that authorizes the discharge of pollutants in stormwater discharges associated with Phase II Municipal Separate Storm Sewer Systems (MS4s).

A. This permit covers the entire Commonwealth of Kentucky

B. Description of Applicant's Operation

The applicant operates a small municipal separate storm sewer system through such controls as legal authority, source identification, discharge characterization, management program, assessment of stormwater controls, and fiscal analysis to ensure adequate funding of the requirements.

2. PERMIT DURATION

Five (5) years

3. THE ADMINISTRATIVE RECORD

The Administrative Record, including the draft permit, fact sheet, public notice, comments received, and additional information is available for review at the Division of Water at 200 Fair Oaks Lane, 4th Floor, Frankfort, Kentucky 40601.

4. CONTACT

Abigail Rains
SWPB Permit Writer
(502) 564-8158, extension 4891.

5. DEFINITIONS

- A. "Best Management Practices" or "BMPs" means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the Commonwealth. BMPs also include treatment requirements, operating procedures, and practices to control stormwater runoff.
- B. "CFR" means Code of Federal Regulations, the official publication for federal regulations.
- C. "Discharge" for the purpose of this permit, unless indicated otherwise, refers to discharges from the Municipal Separate Storm Sewer System (MS4), subject to Section 402 of the CWA.
- D. "Green Infrastructure" is an adaptable term used to describe an array of products, technologies, and practices that use natural systems - or engineered systems that mimic natural processes - to enhance overall environmental quality and provide utility services. As a general principal, Green Infrastructure techniques use soils and vegetation to infiltrate, evapotranspire, and/or recycle stormwater runoff. When used as components of a stormwater management system, Green Infrastructure practices such as green roofs, porous pavement, rain gardens, and vegetated swales can produce a variety of environmental benefits. In addition to effectively retaining and infiltrating rainfall, these technologies can simultaneously help filter air pollutants, reduce energy demands, mitigate urban heat islands, and sequester carbon while also providing communities with aesthetic and natural resource benefits.
- E. "Illicit connection" means any connection to the municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to a KPDES permit, other than the KPDES permit for discharges from the municipal separate storm sewer, and discharges resulting from fire fighting activities, or other *de minimis* activities allowable under the MS4 regulations referenced in 40 CFR 122.26(d) (2) (iv) (B) (1).
- F. "Illicit discharge" means any discharge to the municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to a KPDES permit (other than the KPDES permit for discharges from the municipal separate storm sewer and discharges resulting from fire fighting activities or other *de minimis* activities allowable under the MS4 regulations) and other discharges referenced in 40 CFR 122.26(d) (2) (iv) (B) (1).
- G. "KAR" is an acronym for "Kentucky Administrative Regulations."
- H. "KPDES" is an acronym for "Kentucky Pollutant Discharge Elimination System," the effluent permitting program in the Commonwealth of Kentucky for point source discharges.
- I. "KRS" is an acronym for "Kentucky Revised Statutes."
- J. "MEP", or "Maximum Extent Practicable," is the control standard for discharges from the Municipal Separate Storm Sewer Systems established by 40 CFR 122.34.
- K. "MS4" is an acronym for "municipal separate storm sewer system".
- L. "Municipal Separate Storm Sewer System" means a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, and storm drains): owned or operated by a state, city, town, county, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian Tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;

- i. designed or used for collecting or conveying stormwater;
 - ii. which is not a combined sewer; and
 - iii. which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.
- M. "NPDES" is an acronym for "National Pollutant Discharge Elimination System," the effluent permitting program for point source discharges that is administered by the United States Environmental Protection Agency.
- N. "Permittee(s)" means the primary recipient of a KPDES permit.
- O. "Outfall" means a "point source" at the point where a municipal separate storm sewer discharges to Waters of the United States, but does not include open conveyances connecting two (2) municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other Waters of the Commonwealth and are used to convey waters of the United States.
- P. "Point Source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agricultural lands or agricultural stormwater runoff.
- Q. "Storm Sewer" unless otherwise indicated, refers to a municipal separate storm sewer.
- R. "Stormwater" means stormwater runoff, snowmelt runoff, surface runoff and drainage.
- S. "Stormwater Quality Management Plan" or "SWQMP" is the written plan that details the "Stormwater Quality Management Program". The "Plan" is considered a single document, even though it actually consists of separate programs.
- T. "Stormwater Quality Management Program" refers to a comprehensive program to manage the quality of stormwater discharged from the municipal separate storm sewer system.
- U. TMDL" is an acronym for "Total Maximum Daily Load", a federally mandated program for impaired waters of the Commonwealth to determine the maximum assimilative capacity of a water for a specified pollutant and to allocate allowable pollutant loads to sources in the watershed.
- V. "Water-Quality Control Structure" refers to the structures (e.g. grass swales, filter strips, infiltration basins, detention ponds, stormwater wetlands, natural filtration areas, sand filters and rain gardens, etc.). used to slow runoff, promote infiltration, and reduce sediments and other pollutants in stormwater runoff.
- W. "Waters of the Commonwealth" means and includes any and all rivers, streams, creeks, lakes, ponds, impounding reservoirs, springs, wells, marshes, and all other bodies of surface or underground water, natural or artificial, situated wholly or partly within or bordering upon the Commonwealth or within its jurisdiction.
- X. "Waters of the United States" as defined by the Clean Water Act, applies only to surface waters, rivers, lakes, estuaries, coastal waters and wetlands. Not all surface waters are legally "Waters of the United States." Generally those waters include the following:

- a. All interstate waters
 - b. Intrastate waters used in interstate and/or foreign commerce
 - c. Tributaries of the above
 - d. Territorial seas at the cyclical high tide mark, and
 - e. Wetlands adjacent to all of the above.
- Y. "Wet weather conveyances" are man-made or natural watercourses, including natural watercourses that have been modified by channelization, that flow only in direct response to precipitation runoff in their immediate locality and whose channels are above the groundwater table and which do not support fish and aquatic life and are not suitable for drinking water supplies.

6. BACKGROUND

Stormwater is the surface runoff that results from rain and snow melt. Urban development alters natural infiltration capability of the land and generates a host of pollutants that are associated with the activities of urban populations, thus causing an increase in stormwater runoff volumes and pollutant loadings in stormwater discharges to receiving waterbodies. Urban development increases the amount of impervious surface in a watershed as farmland, forests, and meadowlands with natural filtration characteristics, are converted into buildings with rooftops, driveways, sidewalks, roads, and parking lots with virtually no ability to absorb stormwater.

Polluted stormwater runoff is often transported to municipal separate storm sewer systems (MS4) and ultimately discharged into local rivers and streams without treatment.

The National Pollutant Discharge Elimination System (NPDES) stormwater regulations (40 CFR § 122.26) establish permit requirements for discharges from MS4s. The USEPA's Stormwater Phase II Rule (40 CFR § 122.34) establishes an MS4 stormwater management program that is intended to improve the nation's waterways by reducing the quantity of pollutants that stormwater picks up and carries into storm sewer systems during storm events.

Common pollutants include oil and grease from roadways, pesticides from lawns, sediment from construction sites, and carelessly discarded trash, such as cigarette butts, paper wrappers, and plastic bottles. When deposited into nearby waterways through MS4 discharges, these pollutants can impair the waterways, thereby discouraging recreational use of the resource, contaminating the drinking water supplies, and interfering with the habitat for fish, other aquatic organisms, and wildlife.

In 1999, USEPA promulgated rules establishing requirements for small MS4s. The federal regulations require Kentucky to permit stormwater discharges from small MS4s in the Commonwealth. A regulated small MS4 is defined as any small MS4 located in an "urbanized area" as defined by the U.S. Bureau of Census, as well as those MS4s located outside of an urbanized area that are designated a regulated small MS4 by the NPDES permitting authority (DOW)[40 CFR § 122.32 (a)]. A regulated small MS4 included storm drain conveyance systems owned or operated by a state, city or federal entity, a town, or other public entities, such as universities, prisons, hospitals, and departments of transportation where stormwater discharges directly to waters of the United States.

Rather than numeric 'end of pipe limits', these federal regulations establish six categories of Minimum Control Measures (MCMs) that must be implemented by permittees. Best Management Practices (BMPs) are put into use in order to implement the six MCMs. These 'narrative' BMPs reduce the amount of pollutants discharged in stormwater runoff.

7. PERMIT REQUIREMENTS

A. Maximum Extent Practicable (MEP)

This general permit requires the permittee to develop a stormwater quality

management program that is designed to reduce the discharge of pollutants to the **maximum extent practicable** (MEP). The MEP standard involves applying best management practices that are effective in reducing the discharge of pollutants in stormwater runoff. This requires that the permittee use known, available, and reasonable methods of prevention and control of stormwater discharges.

MEP is an iterative standard, which evolves over time as urban runoff management knowledge increases. As such, the permittee's MS4 program must continually be assessed and modified to incorporate improved programs, control measures, BMPs, etc., to attain compliance with water-quality standards.

B. Public Education and Outreach

The permittee must maintain a public education program and conduct public outreach activities in the community that focus on impacts from stormwater discharges to water bodies and the steps that the public can take to reduce pollutants in stormwater runoff.

There is a presumed greater support for the stormwater management program as the public gains a better understanding of the reasons why the SWQMP is necessary and important, an informed and knowledgeable community is crucial to the success of the a SWQMP. Public support is particularly beneficial when operators of small MS4s attempt to institute new funding initiatives for the program or seek volunteers to help implement aspects of the program. Education can lead to greater compliance with the local programs, as the public becomes aware of the personal responsibilities expected of them and others in the community, including individual actions they can take to protect or improve the quality of local waters.

C. Public Involvement and Participation

The small MS4 general permit contains performance measures for public participation and involvement. The permittee must comply with the state and local public notice requirements when implementing the public involvement and participation program. Activities may include representation of local stormwater management work groups, public hearings, and volunteer monitoring efforts.

Citizen involvement is critical to the success of a Stormwater Quality Management Program because citizens who participate in the decision making process are more likely to take an active role in its implementation of the stormwater program.

D. Illicit Discharge Detection and Elimination

Dry weather discharges into the MS4 system can contribute significant pollutants to receiving water bodies. Detecting and eliminating these illicit discharges involves complex detective work, which makes it challenging to establish a specific prescription to identify and eliminate all illicit connections.

To comply with this minimum control requirement, an MS4 operator must develop a map of the MS4 that locates all major MS4 outfalls and names of receiving waters; effectively prohibit discharges of non-stormwater to the MS4 through the use of an ordinance or other regulatory mechanism, and provide for enforcement procedures and actions; develop and implement a plan to detect and address non-stormwater discharges; and inform public employees, businesses, and the general public of the hazards associated with illegal discharges and improper disposal of waste.

E. Construction Site Stormwater Runoff Control

Stormwater runoff from construction sites often flows to MS4s and ultimately is discharged into receiving water bodies. Sediment is usually the main pollutant of concern. This control measure requires permittees to develop, implement, and enforce a program to reduce pollutants in stormwater runoff from construction activities that result in a land disturbance of one acre or greater. The program must include control of runoff from construction activity disturbing less than one acre if the construction is part of a larger common plan of development that would disturb one acre or more.

All permittees must incorporate the following elements into their local programs:

- Requirements for construction site operators to implement appropriate erosion and sediment control best management practices (BMPs) that, at a minimum, shall be as protective as Kentucky's General Permit for Stormwater Construction sites (KYR100000).
- An ordinance or other regulatory mechanism requiring proper sediment and erosion control and proper waste management controls at construction sites;
- Procedures for site-plan review for both private and public facilities that considers potential water-quality impacts;
- Procedures for site inspection and enforcement for both private and public facilities;
- Procedures for the receipt and consideration of information submitted by the public;
- Procedures for the tracking of the construction occurring within the MS4, inspections, compliance, and enforcement procedures taken, if any; and
- Procedures for providing educational and training measures for construction site operators.

F. Post-Construction Stormwater Management in New Development and Redevelopment

The Post-Construction Stormwater Management program is a key element of the MS4 permit and the Nation's and Commonwealth's strategy for achieving the goals of the Clean Water Act. An effective Post-Construction Stormwater Management program has the ability to positively impact the chemical, biological and overall health of the Commonwealth's streams, rivers and lakes by reducing the rate and volume and improving the quality of stormwater runoff from the MS4.

Post-Construction Stormwater Management refers to the activities that take place after construction occurs, and includes structural and non-structural stormwater controls that protect the environment from the harmful impacts of urban stormwater runoff. Stormwater BMPs incorporate planning practices and site improvements in a manner that promotes groundwater recharge, reduces the volume of, reduces peak discharge rates of and removes pollutants from runoff.

Non-Structural BMPs - DOW encourages the use of water-quality pollution-prevention measures in the post-construction site runoff MCM including non-structural BMP's, which are generally more cost-effective as a long-term solution due to the planning and design techniques used reduces maintenance costs over the life of the BMPs.

Specifically KDOW promotes consideration of non-structural, riparian-based

BMP's that protect and enhance of aquatic habitats, reduce stream bank erosion, reduce and attenuate flooding and promote green space.

Generally, non-structural BMPs incorporate site planning and design techniques including the use of open space, vegetated conveyance and buffers, natural infiltration, stream buffers, green infrastructure, and use low-impact development.

- Open Space - Research has demonstrated the water-quality degradation is proportional to the degree of land disturbance and the percent of impervious area. The use of open space can provide beneficial results in reducing the overall impervious areas within the MS4, thereby reducing stormwater quality and quantity impacts on receiving streams.
- Open Vegetated Conveyance - vegetated conveyance systems, such as grassy swales, should be used, when practicable. Design considerations should promote shallow, low velocity flow in a manner that facilitates sedimentation, infiltration and increased travel time to the discharge point.
- Natural Infiltration - Natural infiltration is an appropriate BMP that can maximize groundwater recharge which will reduce stormwater quality and quantity impacts on receiving streams.
- Local Ordinance and Regulations Review - The permittee is required to review, building codes and other local regulations to promote and encourage the implementation of non-structural BMP's including green infrastructure (green roofs; porous pavements; rain barrels; rain gardens), low impact and cluster developments and disconnection of impervious areas from riparian zones.

Structural BMPs - The permittee is required to develop a locally derived water-quality treatment standard that requires new development projects to implement controls to manage runoff through water-quality control structures. The standard shall be based on an analysis of precipitation records to determine the equivalent surface depth of runoff (e.g. 0.75 inches) produced from an 80th percentile precipitation event.

An 80th percentile precipitation event is defined as the amount of precipitation, based on daily rainfall records, that is greater than 80 percent of all daily rainfall events for the chosen period of record. To calculate the 80th percentile precipitation event, a record of at least 30 years should be used.

The permittee is required to develop and/or adopt structural BMP selection and design guidelines to aid in the planning and design of an appropriate BMP relative to its intended water-quality protection function, ease of maintenance and overall community acceptance. A potential short-list of structural stormwater and green infrastructure BMPs must include grass swales, filter strips, infiltration basins, dry, wet, and extended-wet detention ponds, stormwater wetlands, bio-retention areas, natural filtration areas, sand filters, pervious pavements and rain-gardens.

Special consideration is required to be given to the promotion and consideration of riparian restoration incorporating stream restoration, bio-engineering, natural channel design, habitat restoration and construction/enhancement of wetland features.

G. Pollution Prevention/Good Housekeeping for Municipal Operations

This control measure requires permittees to implement an operation and maintenance program to prevent or reduce polluted runoff from activities conducted by the municipality. The permittee must develop and implement an operation and maintenance (O & M) program that includes a training component, inventory of municipal facilities, maintenance activities, maintenance schedules, and long-term inspection procedures for structural and non-structural stormwater controls to reduce floatables and other pollutants discharged from the MS4. While this measure is meant primarily to improve or protect receiving water quality by altering municipal or facility operations to consider water quality, it also can result in a cost savings for the permittee, as proper and timely maintenance of storm sewer systems can help avoid repair costs from damage caused by age and neglect.

8. MONITORING

A. Monitoring relative to the TMDL

The permittee shall develop and implement an appropriate monitoring program that evaluates the effectiveness of the BMPs to address the TMDL. The program including monitoring strategies, locations, frequencies, and methods shall be submitted to the Division of Water for approval within 12 months of the approval date of the TMDL. Details of the monitoring plan and monitoring data should be included in the annual report required by the MS4 permit.

B. Development of an MS4 Program Monitoring Plan

The permittee shall develop an appropriate monitoring program that evaluates the effectiveness of the MS4 program and provides feedback for the permittee to change or improve the stormwater quality management program appropriately. The MS4 program monitoring plan shall be submitted to the Division of Water for approval before the end of the permit period. The MS4 program monitoring plan as approved by the Division of Water shall be implemented in the following permit period.

9. ANTIDEGRADATION

In the decision rendered by the U.S. Court of Appeals for the Sixth Circuit in Kentucky Waterways Alliance, et al. v. Johnson, et al., the court remanded to EPA its approval of certain sections of Kentucky's Antidegradation Policy Implementation Methodology as codified in 401 KAR 5:030. In response to that remand, the Division of Water has worked with various parties, including parties to the Kentucky Waterways Alliance, et al. v. Johnson, et al. case, to determine an approach to satisfy antidegradation considerations under 40 CFR 131.12. From that effort the division identified four categories of discharges for which antidegradation procedures will be addressed in the permits themselves or for which antidegradation requirements are satisfied by alternative equivalent processes. These four categories of discharges include:

1. Discharges permitted under general permits;
2. Discharges occurring under the approval of a regional wastewater facility plan;
3. New or expanded discharges associated with a project identified in the Kentucky Transportation Cabinet's six-year road plan; and

4. An individual MS4 permit that incorporates provisions that the permit holder address antidegradation considerations or that the permit includes practices and procedures to prevent lowering of water quality from new or expanded discharges from the MS4.

Prior to the remand and reconsideration of 401 KAR 5:030 (newly codified as 401 KAR 10:030), no antidegradation consideration had been made of new or expanded discharges from MS4s. The options for new or expanded discharges from MS4s include: 1) for each new or expanded discharge the MS4 must go through the antidegradation social-economic and alternatives analysis; 2) that the MS4 permit itself incorporate provisions that the permit holder address antidegradation considerations; or 3) the permit includes practices and procedures to prevent lowering of water quality from new or expanded discharges from the MS4. The division maintains that for new or expanded discharges from MS4 systems covered under this general permit the applicable antidegradation requirements are appropriately addressed by the requirements of this MS4 general permit, which includes mandatory procedures and controls, as well as standards of performance. In addition, the Division of Water's interpretation of what constitutes maximum extent practical (MEP), is presented in the requirements of this general permit. The division believes that discharges from small MS4s that are in compliance with this permit will protect water quality from degradation, and may improve water quality to receiving streams. The approach is consistent with the implementation procedures identified in 401 KAR 10:030 for this category of discharge and satisfies applicable antidegradation requirements that existing in-stream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected (401 KAR 10:030 Section 1(3)(b)).

For background, water-quality standards regulations are required to contain an antidegradation implementation policy. In addition, states are required to identify implementation methods that, at a minimum, provide a level of protection that is consistent with the federal antidegradation policy in 40 CFR 131.12. Waters designated as "High Quality" means surface waters categorized as high quality by the cabinet pursuant to 401 KAR 10:030, Section 1. The Division of Water has determined that the terms and conditions of this general permit sufficiently address the requirements of 40 CFR 131.12 and 401 KAR 10:030.

Kentucky is adopting an approach herein that requires the permittee to include in MCM #4 and MCM #5 measures and requirements specifically identified and intended to protect high quality waters from new or expanded discharges occurring from new development or re-development.

The specifics of this general permit with regard to Minimum Control Measure #4, Stormwater Construction, require that the permittee shall implement and enforce an ordinance or other regulatory mechanism that addresses stormwater runoff from active construction sites that disturb one acre or more, and active construction sites less than one acre in size that are part of a larger common plan of development or sale, located within the MS4. This general permit mandates that the permittee require construction site operators to implement appropriate erosion and sediment control best management practices (BMPs) that, at a minimum, are as protective as Kentucky's General Permit for Stormwater Construction sites (KYR100000). Further, the permit requires that the permittee include, by ordinance or other regulatory mechanism, a requirement that discharges from construction sites to high quality waters protect existing in-stream water uses and the level of water quality necessary to protect the existing uses. With regard to Minimum Control Measure #5, Post-Construction

Stormwater Runoff Control, for those areas of development and re-development that result in a new or expanded discharge from the MS4 to high-quality waters this general permit requires that the permittee adopt an ordinance or other regulatory mechanism that shall include standards for runoff control sufficient to protect existing in-stream water uses, and require the permittee to implement review procedures for areas of new development and re-development to ensure that these standards for runoff control are effective. This general permit also requires that the permittee shall develop a locally derived water-quality treatment standard that requires new development projects to implement controls to manage runoff through water-quality control structures. The standard shall be based on an analysis of precipitation records to determine the equivalent surface depth of runoff (e.g. 0.75 inches) produced from an 80th percentile precipitation event.

Discharges from small MS4s are also subject to maximum extent practicable (MEP) control standards. The requirements of the general permit for small MS4s reflect the division's interpretation of what constitutes MEP. In that regard this general permit reflects changes in the division's interpretation of MEP, including the addition of standards for discharges from stormwater construction sites, and new development or redevelopment on a post-construction basis, such as through ordinances implemented by permitted MS4 programs to limit peak discharges. This general permit includes new requirements that mandate the permittee: 1) incorporate into ordinance or other regulatory mechanism stormwater construction standards that, at a minimum, are as protective as Kentucky's General Permit for Stormwater Construction sites, and 2) develop a locally derived water-quality treatment standard that, at a minimum, requires new development projects to implement controls to manage through water-quality control structures the runoff produced from an 80th percentile precipitation event on the site. These new requirements of the MS4 permit reflect the Division of Water's interpretation of MEP and an improvement in control standards for runoff from small MS4s. In light of these improved MEP control standards the division believes that discharges from small MS4s that are in compliance with this permit will protect water quality from degradation, and may improve water quality to receiving streams.

The Division of Water maintains that the requirements of this general permit as they pertain to stormwater construction sites satisfy the antidegradation provisions of 401 KAR 10:030. The division recognizes that new construction activities (the initial source of most new or expanded discharges) are subject to antidegradation consideration under the stormwater construction general permit (KYR100000) or antidegradation review under an individual stormwater construction (or other applicable KPDES permits) and that compliance with these permits provides for compliance with antidegradation implementation policy.

The Division of Water gives consideration to the fact that so-called "new and expanded" (wet weather) discharges coming from an MS4 are to a large extent, existing discharges newly managed via the MS4 system. The division recognizes that the area served by the expanded MS4, under most circumstances, already discharges stormwater to the receiving stream during rain events. The so-called "new or expanded" discharges from the MS4 are in fact not "new" as a discharge, albeit perhaps "different," and may not be "expanded" as this general permit requires the permittee to develop, at a minimum, a locally derived water-quality treatment standard that requires new development projects to implement controls to manage the runoff produced from an 80th percentile precipitation event on the site. Accordingly, new or expanded discharges of stormwater from an MS4 are inherently different from a new or expanded discharge of process water under other KPDES permits.

The permittee shall periodically review procedures for areas of new development and re-development to ensure that these standards for runoff control are effective.

With the understanding of these considerations and the imposition of the aforementioned permit requirements, the division has clarified its expectation of the permitted MS4 programs to meet antidegradation requirements by complying with this permit. The goal of these requirements is to protect existing in-stream water uses and the level of water quality necessary to protect the existing uses.

Where the Division of Water determines through its oversight activities (e.g., SWQMP review, program audits, and inspection) that an MS4 program is not meeting its requirements under this permit, such a deficiency will constitute a violation of the permit and will require follow-up corrective action, which may include a determination that an individual MS4 permit is necessary.

The Division of Water has concluded that the requirements and controls in this general permit, in combination with other permits, are sufficient to protect existing in-stream water uses and the level of water quality necessary to protect the existing uses. In fact, the Division of Water believes that the enhanced requirements of this permit may result in the improvement of water quality of receiving streams. It is the conclusion of the Division of Water that this general permit is consistent with the implementation procedures identified in 401 KAR 10:030 for this category of discharge, and therefore satisfies applicable antidegradation requirements. The division believes the conditions of 401 KAR 10:030 have been satisfied by this permit action. The process described above for new or expanded discharges of stormwater runoff associated with this MS4 general permit are consistent with the requirements of 401 KAR 10:029, Section 1, 401 KAR 10:030, Section 1 and the ruling of the Sixth Circuit Court.

10. PUBLIC NOTICE INFORMATION

Please refer to the attached Public Notice for details regarding the procedures for a final permit decision, deadline for comments, and other information required by 401 KAR 5:075, Section 4(2)(e).

KPDES



KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT

Permit No.: KYG200000
AI No.: 35050

AUTHORIZATION TO DISCHARGE UNDER THE KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

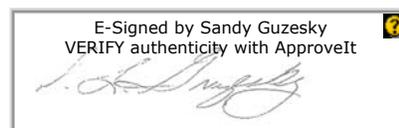
Pursuant to Authority in KRS 224,

Small Municipal Separate Storm Sewer Systems (SMS4)

are authorized to discharge stormwater runoff from a small Municipal Separate Storm Sewer System (MS4) to receiving waters of the Commonwealth in accordance with effluent limitations, monitoring requirements and other conditions set forth in PARTS I, II, III, and IV hereof. The permit consists of this cover sheet, a table of contents, and PART I 4 pages, PART II 13 pages, PART III 2 pages, PART IV 1 page.

This permit shall become effective on April 1, 2010.

This permit and the authorization to discharge shall expire at midnight, March 31, 2015.



March 1, 2010
Date Signed

Sandra L. Guzesky, Director
Division of Water

DEPARTMENT FOR ENVIRONMENTAL PROTECTION
Division of Water, 200 Fair Oaks Lane, Frankfort, Kentucky 40601

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PART I. APPLICABILITY

A. PERMIT COVERAGE AREA

This permit covers small Municipal Separate Storm Sewer System (MS4) discharges located throughout the entire Commonwealth of Kentucky

B. AUTHORIZED DISCHARGES

The permittee identified in Section A of this Part is authorized to discharge stormwater runoff from small MS4 to waters of the Commonwealth in accordance with narrative effluent limitations, monitoring requirements and other conditions set forth in this Section.

1. Limitations

The following discharges are not authorized by this permit:

- a. Discharges of non-stormwater into the MS4, except where such discharges have coverage under a separate KPDES permit or where those discharges have been determined not to represent significant sources of pollution, consistent with state and federal regulations; and
- b. Discharges of materials resulting from a spill, except emergency discharges required to prevent imminent threat to human health or to prevent severe property damage, provided reasonable and prudent measures have been taken to minimize the impact to water quality of the discharges.
- c. Discharges of any pollutant into any water for which a Total Maximum Daily Load (TMDL) has been established prior to the issuance of this permit unless the SWQMP includes a description of the BMPs and implementation procedures to be using to work towards compliance with a TMDL in accordance with Part 2, D. 1. of this general permit.

2. Cross-Connection between Sanitary Sewers and Storm Sewer/MS4 Prohibited

- a. This permit shall not be construed to authorize the discharge of sanitary wastewater through cross connections or to authorize other illicit discharges through the MS4, except as provided in 401 KAR 5:065.

C. CO-PERMITTEES

1. An MS4 may obtain coverage under this general permit as a co-permittee with one or more MS4s.

2. Each co-permittee is individually responsible for:

- a. Permit compliance for discharges from those areas of the MS4 where the permittee or co-permittee is the operator or owner;
- b. Ensuring that the six (6) minimum control measures are implemented for those areas of the MS4 where the permittee or co-permittee is the operator or owner; and

- c. Any permit conditions that are established for specific areas of the MS4 owned or operated by that co-permittee.
3. Each co-permittee is jointly responsible for compliance with annual reporting requirements, except that a co-permittee is individually responsible for any parts of the annual report that relate exclusively to those areas of the MS4 where it is the operator.
4. Each permittee is encouraged to utilize Inter-Local Agreements (ILA), where appropriate, to comply with this permit.

D. OBTAINING AUTHORIZATION

1. A small MS4 may apply and obtain an individual permit for the discharges from the MS4. In that case, the Notice of Intent (NOI) mentioned below would not be a requirement of reapplication. The application would consist of the last annual report required from the previous permit accompanied with a letter requesting that the annual report and the accompanying letter with any program updates listed serve as the application for the individual permit.
2. Newly designated MS4s - To be authorized to discharge stormwater from a small MS4, an MS4 community must submit a Notice of Intent (NOI) and a copy of the Stormwater Quality Management Plan (SWQMP) within 180 days of notice of designation. The SWQMP shall provide the details of the stormwater program and how compliance with this permit will be obtained.
3. Currently designated MS4s - Within thirty (30) days of the effective date of this permit, all operators of small MS4s must submit a Notice of Intent (NOI) on the form provided in Appendix A of this permit.

Within 180 days of the effective date of this permit, all operators of regulated MS4s shall submit a revised SWQMP that reflects the necessary changes to the stormwater quality management program to become compliant with this general permit, including any necessary compliance schedules.

E. DEFINITIONS

Definitions contained in the Kentucky Administrative Regulations (KAR) and Federal NPDES rules apply where one is not specified below. Unless otherwise specified in this permit, additional definitions of words or phrases used in this permit are for this permit only and are as follows:

- A. "Best Management Practices" or "BMPs" means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control stormwater runoff.
- B. "CFR" means Code of Federal Regulations, the official publication for federal regulations.
- C. "Discharge" for the purpose of this permit, unless indicated otherwise, refers to discharges from the Municipal Separate Storm Sewer System (MS4).
- D. "Green Infrastructure" is an adaptable term used to describe an array of products, technologies, and practices that use natural systems - or engineered systems that mimic natural processes - to enhance overall environmental quality and provide utility services. As a general

principal, Green Infrastructure techniques use soils and vegetation to infiltrate, evapotranspirate, and/or recycle stormwater runoff. When used as components of a stormwater management system, Green Infrastructure practices such as green roofs, porous pavement, rain gardens, and vegetated swales can produce a variety of environmental benefits. In addition to effectively retaining and infiltrating rainfall, these technologies can simultaneously help filter air pollutants, reduce energy demands, mitigate urban heat islands, and sequester carbon while also providing communities with aesthetic and natural resource benefits.

- E. "Illicit connection" means any connection to the municipal separate storm sewer that is not composed entirely of stormwater, except discharges pursuant to a KPDES permit, other than the KPDES permit for discharges from the municipal separate storm sewer, and discharges resulting from fire fighting activities, or other *de minimis* activities allowable under the MS4 regulations referenced in 40 CFR 122.26(d) (2) (iv) (B) (1).
- F. "Illicit discharge" means any discharge to the municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to a KPDES permit (other than the KPDES permit for discharges from the municipal separate storm sewer and discharges resulting from fire fighting activities or other *de minimis* activities allowable under the MS4 regulations) and other discharges referenced in 40 CFR 122.26(d) (2) (iv) (B) (1).
- G. "KAR" means "Kentucky Administrative Regulations."
- H. "KPDES" means "Kentucky Pollutant Discharge Elimination System," the effluent permitting program in the Commonwealth of Kentucky for point source discharges.
- I. "KRS" means "Kentucky Revised Statutes."
- J. "MEP", or "Maximum Extent Practicable," is the control standard for discharges from the Municipal Separate Storm Sewer Systems established by 40 CFR 122.34.
- K. "MS4" means "municipal separate storm sewer system".
- L. "Municipal Separate Storm Sewer System" means a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, and storm drains): owned or operated by a state, city, town, county, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian Tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the Clean Water Act that discharges to waters of the United States;
- i. designed or used for collecting or conveying stormwater;
 - ii. which is not a combined sewer; and
 - iii. which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.
- M. "NPDES" means "National Pollutant Discharge Elimination System," the effluent permitting program for point source discharges that is administered in Kentucky as the Kentucky Pollutant Discharge Elimination System by the Division of Water.
- N. "Permittee(s)" means the primary recipient of a KPDES permit.
- O. "Outfall" means a "point source" at the point where a MS4 discharges to Waters of the United States, but does not include open conveyances connecting two (2) municipal separate storm sewers, or pipes, tunnels or

- other conveyances which connect segments of the same stream or other Waters of the Commonwealth and are used to convey waters of the United States.
- P. "Point Source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agricultural lands or agricultural stormwater runoff.
- Q. "Storm Sewer," unless otherwise indicated, refers to a MS4.
- R. "Stormwater" means stormwater runoff, snowmelt runoff, surface runoff and drainage.
- S. "Stormwater Quality Management Plan" or "SWQMP" is the written plan that details the "Stormwater Quality Management Program". The "Plan" is considered a single document, even though it actually consists of the six minimum control measures of the MS4 programs.
- T. "Stormwater Quality Management Program" refers to a comprehensive program to manage the quality of stormwater discharged from the municipal separate storm sewer system.
- U. TMDL" is an acronym for "Total Maximum Daily Load", a federally mandated program for impaired waters of the Commonwealth to determine the maximum assimilative capacity of a water for a specified pollutant and to allocate allowable pollutant loads to sources in the watershed.
- V. "Water-Quality Control Structure" refers to the structures (e.g. grass swales, filter strips, infiltration basins, detention ponds, stormwater wetlands, natural filtration areas, sand filters and rain gardens, etc.). used to slow runoff, promote infiltration, and reduce sediments and other pollutants in stormwater runoff.
- W. "Waters of the Commonwealth" means and includes any and all rivers, streams, creeks, lakes, ponds, impounding reservoirs, springs, wells, marshes, and all other bodies of surface or underground water, natural or artificial, situated wholly or partly within or bordering upon the Commonwealth or within its jurisdiction.
- X. "Waters of the United States" as defined by the Clean Water Act, applies only to surface waters, rivers, lakes, estuaries, coastal waters and wetlands. Not all surface waters are legally "Waters of the United States". Generally those waters include the following:
- a. All interstate waters
 - b. Intrastate waters used in interstate and/or foreign commerce
 - c. Tributaries of the above
 - d. Territorial seas at the cyclical high tide mark, and
 - e. Wetlands adjacent to all of the above.
- Y. "Wet weather conveyances" are man-made or natural watercourses, including natural watercourses that have been modified by channelization, that flow only in direct response to precipitation runoff in their immediate locality and for which channels are above the groundwater table and which do not support fish and aquatic life and are not suitable for drinking water supplies.

PART II. STORMWATER QUALITY MANAGEMENT PROGRAM

The effluent limit requirements of this permit are narrative. The permittee is required to develop, implement, enforce and update, as needed, a SWQMP which shall include controls intended to reduce the discharge of pollutants from its MS4 conveyances consistent with 40 CFR 122.34. The Stormwater Quality Management Program shall provide controls that shall consist of a combination of best management practices (BMPs), control techniques and systems, design and engineering methods, public participation and education, and other appropriate provisions designed to limit the discharge of pollutants from the MS4 conveyances which are environmentally beneficial and technically and economically feasible. The requirements of this general permit represent Maximum Extent Practicable (MEP).

A. LEGAL AUTHORITY REQUIREMENTS

The permittee shall establish legal authority to control discharges to and from those portions of the MS4 over which it has jurisdiction. For newly designated MS4s, this legal authority must be established within 24 months of the notice of permit coverage. The legal authority may be a combination of statutes, ordinances, permits, contracts, orders, or inter-jurisdictional agreements between permittee with adequate existing legal authority to accomplish items 1-5 below:

1. Control the contribution of pollutants to the MS4 by stormwater discharges associated with construction activity, and post-construction activity for new development and redevelopment projects;
2. Prohibit illicit non-stormwater discharges to the MS4, and implement enforcement procedures and actions;
3. Prohibit the discharge of spills and the dumping or disposal of materials (e.g. industrial and commercial wastes, trash, used motor vehicle fluids, leaf litter, grass clippings, animal wastes, etc.) other than stormwater into the MS4;
4. Enforce compliance with conditions in ordinances, permits, contracts and orders relating to discharge to the MS4s; and
5. Carry out all inspection, surveillance and monitoring procedures necessary to determine compliance with permit conditions including the prohibition on illicit discharges to the municipal separate storm sewer.

B. STORMWATER QUALITY MANAGEMENT PROGRAM

The stormwater quality management program is an integral part of the Commonwealth's overall watershed management program, in accordance with 401 KAR 5:060 and 40 CFR 122.26 (d) (2). Implementation of the stormwater quality management program to effectively reduce pollutants (including floatables) in discharges from municipal separate storm sewers must include program elements that address public education and outreach, public participation and involvement, illicit discharge detection and elimination, construction site runoff control, post-construction stormwater management for new development and redevelopment, and good housekeeping and pollution prevention in municipal operations. The program shall be formalized in the SWQMP. This written plan details the procedures in which the permittee will implement the required six minimum control measures and is a dynamic document that should be modified to meet the needs of the permittee using the timeframes described on Part II, Page II-10 C. STORMWATER QUALITY MANAGEMENT PLAN REVIEW AND MODIFICATION

1. Public Education and Outreach

- a. The permittee shall maintain a public education program and conduct public outreach activities in the community that focus on impacts from stormwater discharges to water bodies and the steps that the public can take to reduce pollutants in stormwater runoff. The public education program shall be designed to achieve measurable improvements in the target audience's understanding of stormwater pollution and actions of prevention. The public education and outreach activities are the sole responsibility of the permittee and any co-permittees. However, the permittee is encouraged to utilize the Inter-Local Agreements with KYTC to take advantage of the public outreach program developed by KYTC.
- b. The permittee shall utilize as guidance the Stormwater Education Toolkit developed by the Kentucky Transportation Cabinet with support from the Division of Water, EPA's Nonpoint Source Toolbox, found at <http://www.epa.gov/nps/toolbox/>, or substitute alternate outreach materials that provide an effective equivalent.
- c. The permittee shall prioritize public education and outreach efforts to focus on pollutants impairing or threatening the local waterways.
- d. The permittee shall demonstrate that the education and outreach efforts are targeted to the appropriate audiences and balanced between policy-makers, local citizens, and other stakeholders.
- e. The permittee shall measure the targeted audience understanding of their impacts on water quality and the adoption of the behavior changes resulting from the permittee's public education and outreach efforts. The resulting measurements shall be used to direct education and outreach resources more effectively.
- f. The permittee shall track activities relative to this program element as necessary to document compliance with permit requirements and prepare the annual system-wide report pursuant to Part III.A. of the permit.

2. Public Involvement/Participation

- a. The permittee shall implement a public involvement/participation program. Activities may include representation on local stormwater management work groups, public notices and public hearings, facilitating education volunteers, assisting with program coordination and monitoring efforts. The permittee shall provide public notice of program participation opportunities by methods designed to reach the intended audience.
- b. The permittee shall facilitate opportunities for citizen volunteers who want to participate in the MS4 program (e.g., participating on a Stormwater Advisory Council, volunteer stream monitoring programs, storm-drain marking, riparian planting, stream clean-up events or an effective equivalent).
- c. The permittee shall develop and implement a method of advertising the public involvement opportunities listed above in 2b. Newly designated programs shall implement this advertising method within 180 days of the notice of permit coverage. Current MS4 programs shall develop and implement the advertising method within sixty (60) days of the effective date of this permit. The permittee may: develop a website that

includes information that will inform stakeholders of actions they can adopt that result in behavioral changes that may improve water quality; provide press releases or advertisements of activities to local cable networks, radio stations and/or newspapers; or other alternate methods that provides an effective equivalent communication.

- d. The permittee shall track activities relative to this program element as necessary to document compliance with permit requirements and prepare the annual system-wide report pursuant to Part III.A. of the permit.

3. Illicit Discharge Detection and Elimination

- a. Newly-designated MS4 programs shall, within 24 months of the notice of permit coverage, implement and enforce an ordinance or other regulatory mechanism that prohibits illicit discharges to the MS4. Current MS4 programs shall implement and enforce this required ordinance or other regulatory mechanism upon issuance of this permit.
- b. The permittee shall implement, and enforce a program to prohibit, detect, and address illicit discharges, including illegal dumping to the MS4 system, per applicable state and federal requirements. The program shall include:
 - i. Procedures for locating priority areas likely to have illicit discharges.
 - ii. Field assessment activities, including visual inspection of priority areas identified in i., above, during dry weather and for the purposes of verifying outfall locations, identifying previously unknown outfalls, and detecting illicit discharges.
 - iii. Procedures to provide for the investigation of any complaints, reports, or monitoring information that indicates a potential illicit discharge, spill, or illegal dumping. The permittee shall immediately investigate problems and violations determined to be emergencies or otherwise judged urgent or severe. Where water quality impairments are deemed severe or urgent, the permittee shall promptly refer the incidents to the Department for Environmental Protection's Environmental Emergency 24-hour hotline at (502) 564-2380 or (800) 928-2380.
 - iv. Timeframes for the investigation and removal of illicit discharges shall be established and outlined in the permittees' illicit discharge detection and elimination program.
 - v. Procedures for tracing the source of an illicit discharge; including visual inspections, and when necessary, collecting and analyzing water samples, and other detailed inspection procedures.
 - vi. Procedures for removing the source of the discharge; including notification of appropriate authorities, notification of property owners; technical assistance for eliminating the discharge; follow-up inspections; and enforcement if the discharge is not eliminated.

The permittee shall initiate an investigation, where practicable, of a report or discovery of a suspected illicit connection to determine the source of the connection, and the party responsible

for the connection. Upon confirmation of the illicit nature of a storm-drain connection, the permittee(s), in coordination with other responsible agencies, shall require the responsible party to remove the illicit connection. The permittee shall verify the correction plan is implemented by the responsible party.

- c. The permittee shall provide appropriate training for municipal field staff on the identification and reporting of illicit discharges into the MS4.
- d. The permittee shall develop, and maintain a storm-sewer system map, showing the location of all known major outfalls, as defined herein, and the names and location of all waters of the Commonwealth that receive discharges from those outfalls. If this mapping is completed using Geographical Information Systems (GIS) or Computer Aided Drafting (CAD) software, the permittee shall provide to the Division of Water, at a minimum, the MS4 boundary and the mapped infrastructure in either ESRI shape file formats (to include the .shp, .shx, and .dbf files) or geo-referenced AutoCAD drawings (.dwg file format).
- e. The permittee shall provide the location of all known major outfalls. The outfalls shall be identified in the annual report for Year 2 of the permit; with updates describing any additionally identified major outfalls in each subsequent annual report. For the purposes of this permit a "major outfall" is defined as follows:
 - i. A pipe (or closed conveyance) system with a cross-sectional area equal to or greater than 7.07 square feet (e.g., a single circular pipe system, with an inside diameter of 36 inches or greater); if applicable.
 - ii. A single conveyance other than a pipe, such as an open channel ditch, which is associated with a drainage area of more than 50 acres; if applicable.
- f. The permittee shall conduct dry-weather screening of representative outfalls. The recommended level of effort is twenty percent (20%) of the major outfalls per year. All the major outfalls shall be addressed within the permit term. Screening shall include at a minimum, the visual inspection of the discharge for indicators of pollutants. Indicators shall include odor, oil sheens, discoloration, and high degrees of siltation or aquatic plant growth. Where potential excessive pollutants are indicated, the permittee shall develop a plan to determine potential source(s) and eliminate the discharge. The illicit discharge and detection elimination plan may require follow-up field water-quality sampling and/or analysis or laboratory analyses to determine the pollutant source and most effective plan of action.
- g. Within twelve months of the effective date of this permit, the permittee shall have a mechanism and protocols in place that provide for the public reporting of spills and other discharges. Newly-designated MS4 shall have this mechanism in place, within twelve months of the date of permit coverage. The permittee shall keep a record of spill reports received and actions taken, and include a general summary in the annual report.
- h. In conjunction with the Public Education and Outreach program, the permittee shall inform public employees, businesses, and the general

public of hazards associated with illegal discharges and improper disposal of waste.

- i. If, in the course of illicit discharge detection, it is demonstrated that a sanitary sewer line failure or defect is a source to the MS4, the permittee shall inform the responsible entity and the Division of Water's Regional Office. If the permittee is the responsible entity, the permittee shall proceed to remediate the discharge by following a corrective action plan or a Sanitary Sewer Overflow Plan on a schedule approved by the Division of Water.
- j. The permittee shall adopt and implement procedures for Illicit Discharge program evaluation and assessment, including tracking the number and type of spills or illicit discharges identified, inspections made; and any feedback received from public education efforts.
- k. The permittee shall track activities relative to this program element as necessary to document compliance with permit requirements and prepare the annual system-wide report pursuant to Part III.A. of the permit.

4. Construction Site Stormwater Runoff Control

- a. Within 24 months of the notice of permit coverage, newly-designated MS4 programs shall implement and enforce an ordinance or other regulatory mechanism that addresses stormwater runoff from active construction sites that disturb one acre or more, and active construction sites less than one acre in size that are part of a larger common plan of development or sale, located within the MS4. Current MS4 programs shall implement and enforce an ordinance or other regulatory mechanism that addresses stormwater runoff from active construction sites that disturb one acre or more, and active construction sites less than one acre in size that are part of a larger common plan of development or sale, located within the MS4 upon issuance of this permit. The ordinance or other regulatory mechanism shall include, at a minimum:
 - i. Requirements for construction site operators to implement appropriate erosion and sediment control best management practices (BMPs) that, at a minimum, shall be as protective as Kentucky's General Permit for Stormwater Construction sites (KYR100000).
 - ii. Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.
 - iii. Requirements for demonstration that a notice of intent for coverage under a stormwater construction general permit, an application for a stormwater construction individual permit, or the BMP plan of a KPDES permit has been submitted for those sites one acre and greater.
 - iv. Establishment of authority for site-plan review to affirm compliance with local ordinances, which incorporate consideration of potential water-quality impacts.

- v. Establishment of authority for receipt and consideration of information submitted by the public.
 - vi. Establishment of authority for site inspections and enforcement of control measures. Factors such as the nature of construction activity, topography, and the characteristics of soils and receiving water quality should be considered in determining the frequency of inspection.
 - vii. A requirement that discharges from construction sites to high quality waters will protect existing in-stream water uses and the level of water quality necessary to protect existing in-stream water uses consistent with Kentucky Stormwater Construction Permit (KYR100000).
- b. The permittee shall develop, implement, and enforce a program to reduce pollutants in stormwater runoff from active construction sites. The program to be implemented shall include, at a minimum:
- i. A permitting process with plan review to affirm compliance with local ordinances, inspection, and enforcement capability for all projects subject to this program as described above.
 - ii. Procedures for periodic inspections of all known permitted construction sites during construction to verify proper installation and maintenance of required erosion and sediment controls. A recommended level of effort for periodic inspections should be all active sites monthly and all new sites within two (2) weeks after initiation of land disturbance. Enforcement shall be conducted as appropriate based on the inspection.
 - iii. Development and implementation of an enforcement strategy that includes escalating enforcement remedies to respond to issues of non-compliance.
 - iv. A procedure must be developed to inventory projects and prioritize sites for inspection. The inventory should track the results of inspections, enforcement procedures taken, if any. A summary of inspection and enforcement activities that have been conducted shall be included in the annual report.
 - v. A training program for MS4 staff in the fundamentals of erosion prevention and sediment control and in how to review erosion and sediment control plans or Stormwater Pollution Prevention Plans.
 - vi. Procedures for providing educational and training measures for construction-site operators.
- c. The permittee shall track activities relative to this program element as necessary to document compliance with permit requirements and prepare the annual system-wide report pursuant to Part III.A. of the permit.

5. Post-Construction Stormwater Management in New Development and Redevelopment

Post-Construction Stormwater Management refers to the activities that take place after construction occurs, and includes structural and non-structural controls to obtain permanent stormwater management over the life of the

property's use. Structural stormwater controls include, but are not limited to, grass swales, filter strips, infiltration basins, detention ponds, stormwater wetlands, natural filtration areas, sand filters and rain gardens. Non-structural BMPs incorporate site planning and design techniques including, but not limited to, open spaces, vegetated conveyances and buffers, natural infiltration and low impact development. The post-construction BMPs chosen should be appropriate for the local community, shall be designed to minimize water quality impacts, and shall attempt to maintain pre-development runoff conditions. Each new development and redevelopment project should have a stormwater control component.

- a. Newly-designated MS4 programs shall, within 24 months of the notice permit coverage, implement and enforce an ordinance or other regulatory mechanism that addresses post-construction stormwater runoff from active construction sites that disturb at least one acre, and projects less than one acre that are part of a larger common plan of development or sale, located within the MS4. Current MS4 programs shall implement and enforce this required ordinance or other regulatory mechanism.
- b. The permittee must implement and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb at least one acre, and projects less than one acre that are part of a larger common plan of development or sale, located within the MS4. The program shall apply to private and public development, including roads.
- c. Newly-designated MS4 programs shall, within 24 months of the notice of permit coverage, develop and submit to the Division of Water, an on-site stormwater runoff quality treatment standard for all new development and redevelopment projects. Current MS4 programs shall, within 12 months of the effective date of this permit, develop and submit to the Division of Water, an on-site stormwater runoff quality treatment standard, to be adopted by ordinance or other regulatory mechanism for all new development and redevelopment projects. The proposed local standard will require, in combination or alone, management measures that are designed, built and maintained to treat, filter, flocculate, infiltrate, screen, evapo-transpire, harvest and reuse stormwater runoff, or otherwise manage the stormwater runoff quality. The permittee shall develop a locally derived water-quality treatment standard that requires new development projects to implement controls to manage runoff through water-quality control structures. The standard shall be based, at a minimum, on an analysis of precipitation records to determine the equivalent surface depth of runoff (e.g. 0.75 inches) produced from an 80th percentile precipitation event.
- d. For those areas of development and re-development that result in a new or expanded discharge from the MS4 to high-quality waters, the ordinance or other regulatory mechanism shall include standards for runoff control that are considered sufficient to protect existing in-stream water uses and the level of water quality necessary to protect the existing uses. The permittee shall periodically review procedures for areas of new development and re-development to ensure that these standards for runoff control are effective.

For projects that cannot meet this water-quality treatment standard, the permittee may adopt two alternatives: off-site mitigation and payment-in-lieu.

- i. The off-site mitigation option entails infiltration/evapotranspiration/reuse measures that may be implemented at another location in the same sewershed/watershed as the original project, approved by the permittee(s). The permittee shall identify priority areas within the sewershed or watershed in which mitigation projects can be completed.
- ii. The payment-in-lieu option allows the owner/operator of a construction site that disturbs at least one acre or a project that is less than one acre but is part of larger common plan of development or sale to choose to make a payment to the permittee, in lieu of implementing post-construction BMPs. The permittee will apply these in-lieu funds to a public stormwater project.

For either of these options to be available, the permittee must ensure the proper legal authority, create an inventory of appropriate mitigation projects, and develop appropriate institutional standards and management systems to value, evaluate and track transactions.

- e. Within twelve (12) months of the effective date of the permit current MS4 programs shall review and evaluate municipal policies related to building codes, or other local regulations, with a goal of identifying regulatory and policy impediments to the installation of green infrastructure, such as green roofs, porous pavements, water harvesting devices, grassed swales instead of curb and gutter, rain barrels and cisterns; downspout disconnection, etc.
- f. The permittee shall develop and implement project review, approval, and enforcement procedures for new development and redevelopment projects that disturb greater than one acre, and projects less than one acre that are part of a larger common plan of development or sale. Further requirements for project review and approval are as follows:
 - i. Develop procedures for the site-plan review and approval process and a required re-approval process when changes to stormwater management measures are required.
 - ii. Develop procedures for a post-construction process to demonstrate and document that post-construction stormwater measures have been installed per design specifications, which includes enforceable procedures for bringing noncompliant projects into compliance.
- g. The permittee shall require all new development or redevelopment to establish and enter into a long-term maintenance agreement and maintenance plan approved management practices for property owners. Alternatively, the permittee may establish other enforceable mechanisms for requiring long-term maintenance of structural and non-structural BMPs. Such authorities shall allow the MS4, or its designee, to conduct inspections of the management practices and also account for transfer of responsibility in leases and/or deed transfers. The agreement shall also allow the MS4s, or its designee, to perform necessary maintenance or corrective actions neglected by the property owner/operator, and authority to recover costs from the property owner/operator when the owner/operator has not performed the necessary maintenance.
- h. In order to verify that all stormwater management practices are operating correctly and are properly maintained, the permittee shall establish and implement procedures for inspection of a representative number of

installed Best Management Practices (BMPs) (e.g. the BMPs that were designed, built and maintained to treat, filter, flocculate, infiltrate, screen, evapo-transpire, harvest and reuse stormwater runoff, or otherwise manage the stormwater runoff quality) annually, with the goal of completing an inspection of all BMPs within the MS4 during the permit cycle. Alternatively, the permittee may develop a program for property owner self-inspection documentation with oversight by the permittee(s).

- i. The permittee shall create a program to notify the BMP owner or operator of deficiencies discovered during a maintenance inspection. The permittee must conduct subsequent inspections to ensure completion of required repairs. If repairs are not made, the permittee shall enforce its correction orders and, if need be, perform the necessary work and assess against the owner the costs incurred for repairs.
- j. The permittee shall demonstrate compliance with the requirements for post-construction controls by summarizing the following in the annual report. A summary of the number and types of projects that the permittee reviewed for new and redevelopment considerations and the types of BMPs installed including green infrastructure and buffers.
 - i. A summary of management practice maintenance inspections conducted by the permittee(s), including a summary of the number requiring maintenance or repair, and the number of enforcement actions taken.
 - ii. A summary of any changes to local ordinances to accommodate green infrastructure alternatives.
 - iii. MS4 staff must be trained in the fundamentals of long-term stormwater-quality treatment management practices and in how to review such practices on construction plans and how to inspect practices for long-term protection, operation and maintenance.
- k. The permittee shall track activities relative to this program element as necessary to document compliance with permit requirements and prepare the annual system-wide report pursuant to Part III.A. of the permit.

6. Pollution Prevention/Good Housekeeping for Municipal Operations

- a. The permittee must develop and implement an Operation and Maintenance (O & M) program that includes a training component with the goal of preventing or reducing pollutant runoff from municipal operations.
- b. The O & M program must include employee training to prevent and reduce stormwater pollution resulting from activities such as parks and open space maintenance, fleet and building maintenance, new construction and land disturbances, stormwater system maintenance, and green infrastructure maintenance. The permittee is encouraged to utilize training materials that are available from the EPA, the Division of Water, and other organizations.
- c. The O & M program shall include an inventory of municipal facilities, maintenance activities, maintenance schedules, and ongoing inspection procedures for structural and non-structural BMPs. These BMPs shall be designed to reduce floatables and other pollutants discharged from the separate storm sewers; provide controls for reducing the discharge of pollutants from municipally-owned and operated streets, roads, highways, municipal parking lots, maintenance and storage yards, and fleet and

maintenance shops with outdoor storage areas. BMPs are needed to control runoff from salt/sand storage locations and snow disposal areas operated by the permittee(s), as well as waste transfer stations. The O & M program must incorporate procedures for properly disposing of waste (such as dredge spoil, accumulated sediments, floatables, and other debris) removed from the separate storm sewers and areas listed above. The O & M program shall include methods to ensure that new flood-management projects assess the impacts on water quality protection devices or practices.

- d. The permittee shall track activities relative to this program element as necessary to document compliance with permit requirements and prepare the annual system-wide report pursuant to Part III.A. of the permit.

C. STORMWATER QUALITY MANAGEMENT PLAN REVIEW AND MODIFICATION

1. The permittee shall annually evaluate the effectiveness of the SWQMP and BMPs implemented to comply with this general permit. The permittee shall modify ineffective BMPs, and modify ineffective schedules of effective BMPs.
2. The permittee may modify the SWQMP during the life of the permit in accordance with the following procedures:
 - a. Modifications that add but neither subtract nor replace, components, controls, or requirements may be made by the permittee at any time. A description of the modification shall be included in the Annual Report;
 - b. Modifications that replace an ineffective or infeasible stormwater control, which is specifically identified in the SWQMP along with an alternate stormwater control, may be made by the permittee at any time. A description of the replacement stormwater control shall be included in the following Annual Report along with the following information:
 - i. An analysis of why the former stormwater control was ineffective or infeasible (including cost-prohibitive);
 - ii. Expectations on the effectiveness of the replacement stormwater control; and
 - iii. An analysis of why the replacement stormwater control is expected to achieve the goals of the BMP which this control replaced;
 - c. Modifications to adjust the schedule for maintenance activities or the frequency of inspections identified in the SWQMP may be made by the permittee on an annual basis. The permittee must include in the Annual Report, a description of the adjustment to the schedule along with the following information:
 - i. An analysis of why the former schedule was ineffective or infeasible; and
 - ii. Expectations on the effectiveness of the replacement schedule.
 - d. Modifications included in the Annual Report shall be signed by the permittees affected by that modification, and shall include a certification that the permittee was given an opportunity to comment on

proposed changes; and

e. The permittee shall implement the SWQMP for all new areas added to the MS4 (or for which they become responsible for implementation of stormwater quality controls) as expeditiously as practicable. A description of the implementation schedule shall be provided in the annual report. Implementation of the program in any new area shall consider the plans in the SWQMP of the previous MS4 ownership.

3. The permittee may proceed with any uncompleted programs from the previous permit cycle to provide the continuation of positive activities towards improvement of water quality. A compliance schedule shall be submitted to the Division of Water for approval that delineates the tasks and the anticipated compliance date.

4. The content and provisions of the SWQMP, as discussed in Part II, are not considered permit conditions. The SWQMP is an implementation plan to be utilized as a tool by the permittee to facilitate compliance with the six program elements outlined in this permit.

D. TOTAL MAXIMUM DAILY LOADS AND IMPAIRED WATERS

1. Total Maximum Daily Loads (TMDLs)

If there is an approved existing TMDL for an impaired waterbody into which the permitted MS4 discharges and for which the MS4 causes or contributes to water quality impairment(s), the Division of Water will review the TMDL and applicable wasteload allocation(s) to determine whether the TMDL allocates pollutant reductions for stormwater discharges. If current discharges from the MS4 are not meeting TMDL allocations, the Division of Water will notify the permittee of that finding and require that the SWQMP identified in Part II of this general permit be modified. This modification will occur in conjunction with the normal SWQMP updating process, in accordance with Part II.C.2.d of this permit relating to Plan Implementations and Modifications. This modification will include any applicable and appropriate BMPs to implement the TMDL within a reasonable timeframe. The TMDL shall be implemented by the MS4 to the Maximum Extent Practicable (MEP). The Division of Water may require the MS4 to obtain an individual MS4 permit in order to meet the requirements of the TMDL.

2. Evaluation of TMDL Allocations

During the permit term, if there is an approved TMDL established for a pollutant of concern in the permittee's stormwater discharges, the permittee shall identify the impaired stream segment(s) and/or tributaries to those impaired stream segments and the location of all known MS4 major outfalls discharging a pollutant of concern under the TMDL to those segments or occurring within those segments. The permittee shall evaluate the discharge load associated with the identified MS4 major outfalls for the pollutant, including monitoring, reporting and/or otherwise, at issue. Prior to any reopening of this permit under Part III.C., the permittee shall consider and propose to the maximum extent practicable, applicable and appropriate best management practices guided by the wasteload goal of the TMDL, and a schedule of implementation for those Best Management Practices. Nothing herein shall prevent the permittee from pursuing a variance or exceptions based upon a use attainability analysis or the criteria for exceptions set forth in 401 KAR 10:031. Applicable limitations, conditions and requirements contained in the TMDL are also to be addressed in the SWQMP.

3. Monitoring relative to the TMDL

The permittee shall develop and implement an appropriate monitoring program that is designed to evaluate the effectiveness of the BMPs to address the TMDL. An effective monitoring program could include:

- a. Effluent monitoring at selected outfalls that are representative of particular land uses or geographical areas that contribute to pollutant loading before and after implementation of stormwater control measures; or
- b. Monitoring of pollutants of concern in receiving waterbodies, both upstream and downstream of MS4 discharges, over an extended period of time; or
- c. In-stream biological monitoring at appropriate locations to demonstrate the recovery of biological communities after implementation of stormwater control measures.

The program including monitoring strategies, locations, frequencies, and methods shall be submitted to the Division of Water for approval within 12 months of the approval date of the TMDL. Details of the monitoring plan and monitoring data should be included in the annual report required by the MS4 permit.

4. Impaired Water Bodies

For impaired waters that lack a TMDL, the permittee shall identify impaired waters into which the MS4 discharges, and evaluate its Best Management Practices to be included in the SWQMP, at a minimum, this information should be updated in the annual report following the finalization of the Kentucky's Section 303(d) list of impaired waters (every two years) with respect to any new or expanded MS4 discharges for pollutants of concern to ensure effectiveness of post construction control requirements to achieve the MEP standard, evaluation may be conducted on a watershed basis.

E. DEVELOPMENT OF AN MS4 PROGRAM MONITORING PLAN

1. The permittee shall develop an appropriate monitoring program that evaluates the effectiveness of the MS4 program and provides feedback for the permittee to change or improve the stormwater quality management program appropriately. The MS4 program monitoring plan shall be submitted to the Division of Water for approval before the end of the permit period. The MS4 program monitoring plan, as approved by the Division of Water, shall be implemented in the following permit period.

An effective MS4 program monitoring plan should include one or more of the following options:

- a. Effluent monitoring of pollutants and conditions of concern at selected outfalls that are representative of particular land uses or geographical areas that contribute to pollutant loading before and after implementation of stormwater control measures;
- b. Monitoring of pollutants and conditions of concern in receiving waterbodies, both upstream and downstream of MS4 discharges, over an extended period of time;

- c. In-stream biological monitoring at appropriate locations to demonstrate the recovery of biological communities after implementation of stormwater control measures; or
- d. Monitoring of other parameters or conditions that provides a measure of the effectiveness of the stormwater quality management program.

F. QUALIFYING LOCAL PROGRAMS

A Qualifying Local Program (QLP) is an MS4 stormwater management program for stormwater discharges associated with construction activity that has been formally approved by the Division of Water and EPA. If a construction site is within the jurisdiction of the MS4 with QLP designation and has obtained a notice of coverage from a QLP, the operator of the construction activity is authorized to discharge stormwater associated with construction activity under this general permit without seeking a permit from the Division of Water.

The aspects of a qualifying local program (QLP) must demonstrate:

- 1. An MS4 which has been through more than two MS4 permit cycles;
- 2. An MS4 with proven enforcement capability; and
- 3. An MS4 with an established record keeping and tracking system for issuing coverages, inspections and enforcement activities.

G. FISCAL REQUIREMENTS

Funding shall be established and maintained to ensure the accomplishment of the activities required by this permit.

PART III. REPORTING

A. REPORTING REQUIREMENTS

1. The permittee shall prepare an annual system-wide report to be submitted no later than April 15th of the year following the calendar year covered by the report. The annual report shall include at a minimum:
 - a. An overall evaluation of the stormwater quality management program developments and progress including: major findings such as water-quality improvements or degradation, major accomplishments, overall program strengths/weaknesses; and future direction of the program. The permittee shall state an overall assessment of the effectiveness of the SWQMP taking into account water quality/watershed improvements;
 - b. An explanation of how the permittee evaluated the effectiveness of each of the program elements;
 - c. The status of the implementation and proposed changes to the stormwater quality management program including assessment of controls and specific improvements or degradation to water quality;
 - d. A summary of inspections and enforcement actions for regulatory programs;
 - e. The implementation status of the public education programs;
 - f. Any improvements in water quality due to watershed activities.
 - g. The Annual Report shall be submitted to:

Kentucky Division of Water
Surface Water Permits Branch
200 Fair Oaks Lane, 4th Floor
Frankfort, Kentucky 40601
2. Records accumulated pursuant to this general permit shall be retained for no fewer than three years following the termination of this general permit.

B. CERTIFICATION

All applications or reports submitted to the Division of Water (DOW) shall be signed and certified pursuant to 401 KAR 5:060. Each report shall contain the following completed declaration:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on the day of __, month, year.
(Signature)(Title)"

C. REOPENER CLAUSE

This permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under 401 KAR 5:050 through 5:085, if the effluent standard or limitation so issued or approved:

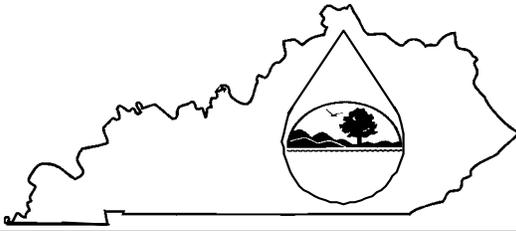
1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
2. Controls any pollutant not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of KRS Chapter 224 when applicable.

PART IV. STANDARD CONDITIONS FOR KPDES PERMIT

The permittee is also advised that applicable KPDES permit conditions in KPDES regulation 401 KAR 5:065, Section 1, will apply to all discharges authorized by this permit.

This permit has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal, and local agencies.



Kentucky Pollutant Discharge Elimination System (KPDES)
 Notice of Intent (NOI)
 for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (SMS4) KPDES General Permit

Submission of this Notice of Intent constitutes notice that the party identified in Section I of this form intends to be authorized by a KPDES permit issued for stormwater discharges from a small municipal separate storm sewer system (SMS4). Becoming a permittee obligates such discharger to comply with the terms and conditions of the permit.

ALL NECESSARY INFORMATION MUST BE PROVIDED ON THIS FORM (See Attached Instructions)

I. Permittee Information (attach co-permittee information to this application, if applicable)

Name:		Contact Person:	
Address: (If PO Box, include street address)		Phone:	
City, State, Zip Code:			

II. Storm Sewer Map

Submit a storm sewer system map indicating the location of all major storm sewer outfalls and names and locations of the receiving streams, and delineation of watershed drainage areas.

III. Minimum Controls:

Submit a report of the best management practices already implemented or scheduled to be implemented to meet the minimum control measures, including any measurable goals to aid in the development and implementation of the controls (an MS4's existing SWQMP and/or annual report may be submitted to satisfy this requirement). Indicate by marking the appropriate box whether you or another entity is responsible for the respective control measure. If another entity, indicate the name of the responsible party next to the appropriate box.

Are you responsible for the control measure?

If no, indicate the responsible party.

A. Public Education and Outreach	Yes <input type="checkbox"/>	No <input type="checkbox"/>
B. Public Involvement and Participation	Yes <input type="checkbox"/>	No <input type="checkbox"/>
C. Illicit Discharge Detection and Elimination	Yes <input type="checkbox"/>	No <input type="checkbox"/>
D. Construction Site Runoff Control	Yes <input type="checkbox"/>	No <input type="checkbox"/>
E. Post Construction Management for Development and Re-Development	Yes <input type="checkbox"/>	No <input type="checkbox"/>
F. Pollution Prevention and Good Housekeeping for Municipal Operations	Yes <input type="checkbox"/>	No <input type="checkbox"/>

IV. Certification: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Printed or Typed
Name:**

Signature:

Date:

**Kentucky Pollutant Discharge Elimination System (KPDES)
Instructions**

Notice of Intent (NOI) for Stormwater Discharges Associated with Small Municipal Separate Storm Sewer Systems (SMS4) To Be Covered Under the KPDES General Permit

WHO MUST FILE A NOTICE OF INTENT (NOI) FORM

The operator of a small municipal separate storm sewer system (SMS4) in accordance with 40 CFR Parts 9, 122, 123, and 124 and 401 KAR 5:060, must submit a NOI to obtain coverage under the SMS4 KPDES Stormwater General Permit. If you have questions about whether you need a permit under the small (SMS4) KPDES Stormwater Program, call **Abigail Rains, Wet Weather Section, Kentucky Division of Water at (502) 564-3410, extension 4891.**

WHERE TO FILE NOI FORM

NOIs must be sent to the following address:

**Section Supervisor
Permit Support Section
Surface Water Permit Branch, Division of Water
Frankfort Office Park
200 Fair Oaks Lane, 4th Floor
Frankfort, KY 40601**

COMPLETING THE FORM

Type or print legibly in the appropriate areas only. If you have any questions regarding the completion of this form call **Abigail Rains, Wet Weather Section, at (502) 564-3410, extension 4891.**

SECTION I - Permittee Information

Give the legal name of the person, firm, public organization, or entity legally designated as the Permittee responsible for maintaining compliance with the approved Stormwater Phase II MS4 permit. Enter the complete address and phone number of the operator of the MS4 system(s) and co-permittees bound by the Stormwater Phase II MS4 permit as a part of this NOI. **Attach a list of co-permittees if applicable. Also, include co-permittee list and legally binding MOU's in the Stormwater Management Plan (SWMP).**

SECTION II - Storm Sewer Map

Include a detailed map of the storm sewer system indicating all stormwater outfalls to the waters of the Commonwealth and delineating the separate watershed drainage areas.

SECTION III - Minimum Control Measures

Include the current status of the listed control measures. If another entity is responsible for a particular control measure, indicate the entity as appropriate.

SECTION IV - CERTIFICATION

Federal statutes provide for severe penalties for submitting false information on this application form. Federal regulations require this application to be signed as follows:

For a municipality, state, Federal, or other public facility: by either a principal executive officer or ranking elected official.



STEVEN L. BESHEAR
GOVERNOR

ENERGY AND ENVIRONMENT CABINET

DEPARTMENT FOR ENVIRONMENTAL PROTECTION

DIVISION OF WATER

200 FAIR OAKS LANE

FRANKFORT, KENTUCKY 40601-1190

www.kentucky.gov

GOVERNOR
SECRETARY

March 1, 2010

Re: Phase II MS4 General Permit
KPDES No.: KYG200000
AI No.: 35050
Kentucky

Dear Commenter:

Your comments concerning the above-referenced draft permit have been reviewed and responses prepared in accordance with Kentucky Pollutant Discharge Elimination System (KPDES) regulation 401 KAR 5:075, Section 12. The comments have been categorized and briefly described below and our responses to those comments follow:

Comment 1: A commenter disagrees with the Division's assertion in the Fact Sheet 9. Antidegradation that "the application of the Maximum Extent Practicable (MEP) standard set forth in this general permit and protections afforded by other permits...will not result in water quality being lowered to a level that would interfere with existing or designated uses in accordance with 401 KAR 10:030. This MS4 general permit provides that any impacts may be addressed via alternatives employed by Minimum Control Measure #5 for post-construction stormwater runoff."

Response 1: The requirements of the general permit for small MS4s reflect the division's interpretation of what constitutes MEP. In that regard this general permit reflects changes in the division's interpretation of MEP, including the addition of standards for discharges from stormwater construction sites, and new development or redevelopment on a post-construction basis, such as through ordinances implemented by permitted MS4 programs to limit peak discharges. This general permit includes new requirements that mandate the permittee: 1) incorporate into ordinance or other regulatory mechanism stormwater construction standards that, at a minimum, are as protective as Kentucky's General Permit for Stormwater Construction sites, and 2) develop a locally derived water-quality treatment standard that requires new development projects to implement controls to manage runoff through water-quality control structures. The standard shall be based, at a minimum, on an analysis of precipitation records to determine the equivalent surface depth of runoff (e.g. 0.75 inches) produced from an 80th percentile precipitation event. These new requirements of the MS4 permit will reflect the Division of Water's interpretation of MEP and an improvement in control standards for runoff from small MS4s. In light of these improved MEP control standards the division believes that discharges from small MS4s that are in compliance with this permit will protect water quality from degradation, and may improve water quality to receiving streams.

RESPONSE TO COMMENTS

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- Comment 2: A commenter believes that any permittee approved for coverage under KYG200000 should be required to admit their design will lower water quality in high quality and exceptional waters and be required to perform a full antidegradation analysis including a socioeconomic demonstration and alternatives analysis. Without the completion of an antidegradation review the permittee should be required at a minimum to implement a menu of Low Impact Design (LID) Best Management Practices and to use developed estimates of how the LID measures will reduce runoff, and subsequently degradation with a stated goal of retaining 85-90% of pre-development runoff conditions on each site.
- Response 2: The new requirements of the MS4 general permit reflect the Division of Water's interpretation of MEP and an improvement in control standards for runoff from small MS4s. In light of these improved MEP control standards, the division believes that discharges from small MS4s that are in compliance with this permit will protect water quality from degradation, and may improve water quality to receiving streams.
- Comment 3: A commenter noted the permit must ensure that new or increased discharges to impaired waters will satisfy antidegradation provisions. Any new discharges or new outfalls constructed or created by the permittee after the authorization date of this permit would be considered under the jurisdiction of the MS4 permit. Therefore, the permit should require the permittee to notify KDOW a minimum of thirty (30) days prior to commencement of a new discharge or increased discharge from the MS4, and include a description of the discharge together with information demonstrating that the discharge will satisfy the antidegradation provisions of the state water quality standards. In addition, prior to commencing any new or increased discharge, the permittee should be required at a minimum to implement a menu of Low Impact Design (LID) Best Management Practices and to use developed estimates of how the LID measures will reduce runoff, and subsequently degradation with a stated goal of retaining 85-90% of pre-development runoff conditions on each site to ensure compliance with antidegradation provisions and the terms of the permit or admit the proposed design will lower water quality in high quality and exceptional waters and be required to perform a full antidegradation analysis including a socioeconomic demonstration and alternatives analysis.
- Response 3: Discharges from small MS4s are subject to maximum extent practicable (MEP) control standards. The requirements of the general permit for small MS4s reflect the division's interpretation of what constitutes MEP. In that regard this general permit reflects changes in the division's interpretation of MEP, including the addition of standards for discharges from stormwater construction sites, and new development or redevelopment on a post-construction basis, such as through ordinances implemented by permitted MS4 programs to limit peak discharges. This general permit includes new requirements that mandate the permittee: 1) incorporate into ordinance or other regulatory mechanism stormwater construction standards that, at a minimum, are as protective as Kentucky's General Permit for Stormwater Construction sites, and 2) develop a locally derived water-quality treatment standard that requires new development projects to implement controls to manage runoff through water-quality control structures. The standard shall be based, at a minimum, on an analysis of precipitation records to determine the equivalent surface depth of runoff (e.g. 0.75 inches) produced from an 80th percentile precipitation event on the site. These new requirements of the MS4 permit reflect the Division of Water's interpretation of MEP and an improvement in control standards for runoff

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from small MS4s. In light of these improved MEP control standards the division believes that discharges from small MS4s that are in compliance with this permit will protect water quality from degradation, and may improve water quality to receiving streams.

Comment 4: A commenter noted the statements in the Fact Sheet should be consistent in presenting KDOW's conclusion as to how the permit complies with requirements for high quality waters: Is it: (1) significant lowering of water quality will be prevented, or (2) permanent lowering of water quality will not occur? If KDOW believes those two conclusions to be the same, the Fact Sheet should say that as well.

Response 4: The new requirements of the MS4 general permit reflect the Division of Water's view of MEP and an improvement in control standards for runoff from small MS4s. In light of these improved MEP control standards, the division believes that discharges from small MS4s that are in compliance with this permit will protect water quality from degradation, and may improve water quality to receiving streams.

Comment 5: A commenter noted if compliance with high quality waters requirements is based on prevention of "significant" lowering of water quality, KDOW should provide additional explanation as to how the permit complies with a requirement(s) of KAR 10:030, in relation to high quality waters, since the terms "significant lowering of the water quality," or "significant degradation" are not terms that are used in the regulation.

Response 5: The division has amended the fact sheet and removed references to "significant lowering of the water quality," and "significant degradation." This general permit includes new requirements that mandate the permittee: 1) incorporate into ordinance or other regulatory mechanism stormwater construction standards that, at a minimum, are as protective as Kentucky's General Permit for Stormwater Construction sites, and 2) develop a locally derived water-quality treatment standard that, at a minimum, requires new development projects to implement controls to manage runoff produced from an 80th percentile precipitation event through water-quality control structures.. These new requirements of the MS4 permit reflect the Division of Water's interpretation of MEP and an improvement in control standards for runoff from small MS4s. The division believes that discharges from small MS4s that are in compliance with this general permit will protect water quality from degradation, and may improve water quality to receiving streams.

Comment 6: A commenter noted that this draft permit contains the same language in the purpose section as the language that EPA specifically asked the State to clarify in Kentucky's draft Fact Sheet for the KYR10 general permit for construction stormwater (i.e., "The process for making a determination of whether water quality will be lowered in these waters to a level that would interfere with existing or designated uses is what is commonly known as 'Tier 2 review'"). KDOW did not make the changes that EPA requested to that Fact Sheet and did not provide an explanation of KDOW's position on this statement in relation to the revised antidegradation methodology adopted in the triennial review. Is it KDOW's opinion that a demonstration of socioeconomic necessity and importance allows lowering of water quality to the criteria levels established for applicable uses for the receiving waters? We ask that KDOW clarify the State's position on this issue in writing- as a revision to the statement in the Fact Sheet for this draft general permit, and in writing to EPA as a part of the submittal of the new and revised standards adopted during the triennial review.

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Response 6: The agency has been removed the language from the Fact Sheet.

Comment 7: A commenter noted the Fact Sheet states that an individual permit will be required "where implementations of the technology-based requirements in this permit will be sufficient to protect the applicable water quality standards for receiving water..." We request you include additional information in the fact sheet that would clarify: who will make that decision, what decision criteria/factors will be used, and at what point(s) in the permit issuance process will this decision be made.

Response 7: The agency has been removed the language from the Fact Sheet.

Comment 8: A commenter noted that the permit must ensure that new or increased discharges to impaired waters will satisfy antidegradation provisions. Any new discharges or new outfalls constructed or created by the permittee after the authorization date of this permit would be considered under the jurisdiction of the MS4 permit. Therefore, the permit should require the permittee to notify KDOW a minimum of thirty (30) days prior to commencement of a new discharge or increased discharge from the MS4, and include a description of the discharge together with information demonstrating that the discharge will satisfy the antidegradation provisions of the state water quality standards. In addition, prior to commencing any new or increased discharge, the permittee should be required at a minimum to implement a menu of Low Impact Design (LID) Best Management Practices and to use developed estimates of how the LID measures will reduce runoff, and subsequently degradation with a stated goal of retaining 85-90% of pre-development runoff conditions on each site to ensure compliance with antidegradation provisions and the terms of the permit or admit the proposed design will lower water quality in high quality and exceptional waters and be required to perform a full antidegradation analysis including a socioeconomic demonstration and alternatives analysis.

Response 8: Discharges from small MS4s are subject to maximum extent practicable (MEP) control standards. The requirements of the general permit for small MS4s reflect the division's interpretation of what constitutes MEP. In that regard this general permit reflects changes in the division's interpretation of MEP, including the addition of standards for discharges from stormwater construction sites, and new development or redevelopment on a post-construction basis, such as through ordinances implemented by permitted MS4 programs to limit peak discharges. This general permit includes new requirements that mandate the permittee: 1) incorporate into ordinance or other regulatory mechanism stormwater construction standards that, at a minimum, are as protective as Kentucky's General Permit for Stormwater Construction sites, and 2) develop a locally derived water-quality treatment standard that requires new development projects to implement controls to manage runoff through water-quality control structures. The standard shall be based, at a minimum, on an analysis of precipitation records to determine the equivalent surface depth of runoff (e.g. 0.75 inches) produced from an 80th percentile precipitation event. These new requirements of the MS4 permit reflect the Division of Water's interpretation of MEP and an improvement in control standards for runoff from small MS4s. In light of these improved MEP control standards the division believes that discharges from small MS4s that are in compliance with this permit will protect water quality from degradation, and may improve water quality to receiving streams.

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The Division of Water believes that the controls within the permit general permit are consistent with the implementation procedures identified in 401 KAR 10:030 for this category of discharge, and satisfy applicable antidegradation requirements. The division believes the conditions of 401 KAR 10:030 have been satisfied by this permit action. The process described above for new or expanded discharges of stormwater runoff associated with this MS4 general permit are consistent with the requirements of 401 KAR 10:029, Section 1, 401 KAR 10:030, Section 1 and the ruling of the Sixth Circuit Court.

Comment 9: A commenter noted that the Fact Sheet at Page 5 states that MS4s must provide a map of "all" MS4 outfalls. That is inconsistent with the text of the permit, which limits mapping requirements under the illicit program to "major" MS4 outfalls. Please clarify that all outfalls need not to be included on the map.

Response 9: The word "major" has been added to the Fact Sheet at Page 5.

Comment 10: A commenter noted the Fact Sheet indicates that Administrative Record includes a "permit application." Since there is no "application" at issue, and that reference should be deleted from the Fact Sheet. The administrative record should, however, include KDOW's guidance document entitled "Phase II Stormwater Quality Management Plan Preparation Guidance", which is referenced in each of the six minimum program requirements with respect to recordkeeping requirements if that guidance document is to be used. As set forth below, the Guidance document does not appear to address reporting and recordkeeping provisions for which it was cited.

Response 10: The reference to an application has been deleted from the Fact Sheet, and the reference to the "Phase II Stormwater Quality Management Plan Preparation Guidance" has been deleted from the permit language as well.

Comment 11: A commenter noted that the Fact Sheet on Page 6 notes that a requirement for post-construction stormwater runoff control program is to maximize groundwater recharge and that the permittee is "required" to assess maximizing groundwater recharge. That requirement is not referenced in the permit itself. The Clean Water Act does not require municipalities to maximize groundwater recharge, and the statement should be stricken from the Fact Sheet.

Response 11: The term "required" has been removed from the Fact Sheet. The Fact Sheet now reads "Natural Infiltration is an appropriate BMP that can maximize groundwater recharge which will reduce stormwater quality and quantity impacts on receiving streams".

Comment 12: Under Part I (Applicability), Section C. (Co-Permittees), the applicability of paragraph 2.c. is not clear. That provision provides that each co-permittee is individually responsible for "...any permit conditions that are established for specific areas of the MS4." A commenter suggested the phrase "owned or operated by that co-permittee" should be added at the end of paragraph 2.c. to make clear that other co-permittees that do not own or operate a portion of the MS4 are not responsible for such specific permit conditions.

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- Response 12: The phrase "owned or operated by that co-permittee" has been added at the end of paragraph 2.c. to clarify that other co-permittees that do not own or operate a portion of the MS4 are not responsible for specific permit conditions outside of their jurisdiction.
- Comment 13: Under Part I, Section D., relating to "Obtaining Authorization", a commenter suggested that either the Fact Sheet or the permit should provide an option to small MS4s to apply for and obtain an individual permit in lieu of the general permit. For example, Section D.2. provides that all operators of small MS4s that are currently regulated must submit a Notice of Intent to be covered by the general permit. An NOI should not be required if an individual permit is pursued. Existing systems should have an opportunity to apply for an individual permit in lieu of submitting a Notice of Intent for the general permit.
- Response 13: The option for applying for and obtaining an individual permit in lieu of the general permit has been added to the permit.
- Comment 14: A commenter suggested that under the definition part of the permit that KDOW add the definition "Stormwater discharge associated with small construction activity" as stated in 40 CFR 122.26 (15) (i). This definition defines the targeted construction sites in MCM4. It is also noted in this definition that "small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one and less than five acres."
- Response 14: The definition for "stormwater discharge associated with small construction activity" is not necessary. The division does not distinguish between small and large stormwater construction sites, and this permit requires construction site operators to implement appropriate erosion and sediment control best management practices (BMPs) that, at a minimum, shall be as protective as Kentucky's General Permit for Stormwater Construction sites (KYR100000).
- Comment 15: A commenter has noted that a definition was not provided for "priority pollutants" and asks if it correct to assume that "priority pollutants" are those that are causing stream impairments based upon the impaired streams list and approved TMDLs and caused by urban land use.
- Response 15: The word "priority" has been removed from the permit. While, it was a correct assumption by the commenter, the word "priority" has been removed to clarify the statement.
- Comment 16: "Outfall" means a "point source" at the point where a municipal separate storm sewer discharges to Waters of the United States, but does not include open conveyances connecting two (2) municipal separate storm sewers, or pipes, tunnels, or other conveyances which connect segments of the same stream or other Waters of the Commonwealth and are used to convey waters of the United States. A commenter asks if this means that the discharge points of storm drains (regardless of size) that connect into a subsurface conveyance carrying a stream are not outfalls?
- Response 16: Connections to subsurface drainage, such as Class V injection wells, sinkholes, drywells, karst windows, sinking streams, or other karst features are regulated by the Safe Drinking Water Act (Underground Injection Control program). This program is directly implemented in the

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Commonwealth of Kentucky by the U.S. Environmental Protection Agency, Region IV. As such, these conveyances are not considered outfalls under the Kentucky Municipal Separate Storm Sewer Program.

Comment 17: A commenter feels the SWQMP must be a permit condition of the final permit. The Clean Water Act standard for MS4s is that the permit must include conditions to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP) in order to protect water quality. Typically, narrative effluent limits, including source reduction and pollution prevention, are included in a stormwater plan. Unfortunately, the draft permit states in the Stormwater Management Program Review and Modification section that:

1. The permittee shall annually evaluate the effectiveness of the stormwater program and BMP's implemented to comply with this general permit. (Draft Permit, p.II-10)
2. The permittee *may* modify the stormwater quality management plan (SQWMP) during the life of the permit...(emphasis added, Draft Permit, p.II-10)
3. The content and provisions of the SWQMP, as discussed Part II, are *not* considered permit conditions. The SWQMP is an implementation plan to be utilized as a tool by the permittee to facilitate compliance with the six program elements outlined in this permit (emphasis added, Draft Permit, p. II-11).

In effect, then, under the terms of the draft permit, the permittee is not obligated to review the SWQMP, modify ineffective BMPs, modify the schedule of requirements in the SWQMP, or implement the SWQMP on new areas added to the MS4. As you are aware, operators of MS4s are obligated to develop and implement stormwater management plans that reduce the discharge of pollutants to the maximum extent practicable (MEP). According to EPA, the standard of MEP should adapt to both effectiveness and changing conditions (see <http://cfpub.epa.gov/npdes/stormwater/measurablegoals/part1.cfm>). If the permittee is not obligated to continuously review and modify the SWQMP, the standard of MEP, by definition, will not be met. The final permit must be amended to require the permittee to update and modify the SWQMP as needed to ensure improvement in water quality. The SWQMP is itself an effluent limit contained in the KPDES permit.

Response 17: The SWQMP is a dynamic document that must be updated to address ineffective BMPs and other necessary changes (i.e., responsible parties, or frequencies) and is a plan to implement the requirements of the permit and not subject to permit requirements. The division disagrees with the comment that the permittee is not obligated to review the SWQMP, modify ineffective BMPs, modify the schedule of requirements in the SWQMP, or implement the SWQMP on new areas added to the MS4. The permit requires the permittee to evaluate annually the effectiveness of the SWQMP and the BMPs used to implement the plan. Modifications that replace an ineffective or infeasible stormwater control, which is specifically identified in the SWQMP, may be made at any time; however, the changes including the alternative stormwater control that replaced the ineffective one shall be submitted with the Annual Report. Further, any changes made to the SWQMP must be submitted in the following Annual Report.

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- Comment 18: A commenter noted that the definition of "Stormwater Quality Management Program" or "SWQMP" is defined as the overall stormwater program, which is different from (and broader than) the "Stormwater Quality Management Plan". The Stormwater Quality Management Plan is the written document that details the "SWQMP." It appears that the Division has used the term in the SWQMP in the permit in various places where it really referring to the Stormwater Quality Management Plan document and not the entire program.
- Response 18: Statements have been added to the permit that clarifies the distinction of the Stormwater Quality Management Program and the SWQMP.
- Comment 19: A commenter noted that under Part I, Section D.2., of the permit relating to the submittal of revised SWQMPs, should be clarified that revised SWQMPs may include compliance schedules where necessary or appropriate to come into compliance with newly established provisions of the general permit. It is critical for municipalities to have ample time to create, review, and obtain public input on new program elements. Some new program elements may take longer than 180 days. Indeed 24 months is provided for legal authorities under Part II. Section A. Compliance schedule opportunities should be addressed in the response to comments.
- Response 19: Part I, Section D.3., relates to the submittal of revised SWQMPs. The suggested compliance schedule language has been added to this section of the permit.
- Comment 20: A commenter noted that under Part I, Section E. (Definitions), the SWQMP is referenced as being the "Stormwater Quality Management Program." As discussed above, in other sections of the permit, as well as in the Kentucky SWQMP Guidance, the SWQMP is referred to as the Stormwater Quality Management Plan. It is suggested that the acronym SWQMP, be used for referring to the "Stormwater Quality Management Plan."
- Response 20: The acronym "SWQMP" refers solely to the written "Stormwater Quality Management Plan". The permit has been revised to clarify this issue.
- Comment 21: A commenter noted that under Part II, Section B., relating to the Stormwater Quality Management Program, the "Phase II Stormwater Quality Management Plan Preparation Guidance" is adopted with regard to recordkeeping and annual reporting provisions within each of the six program elements. However, that guidance document does not address recordkeeping or annual reporting. In adopting guidance documents as permit requirements, the version of the guidance document currently in effect at the time of the public comment period may be incorporated by reference into the permit with respect to specific requirements and conditions. However, subsequent amendments to the guidance document cannot modify the permit requirements since any such requirements will not have been subject to public notice and comment as "permit conditions". It is therefore suggested that each of these paragraphs referencing the Guidance document be stricken and replaced with a provision that provides "the permittee shall track and maintain respect to this program element as necessary to document compliance with permit requirements and prepare the annual system-wide report pursuant to Part III.A. of the permit."

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Response 21: Reference to the "Phase II Stormwater Quality Management Plan Preparation Guidance" has been removed from the permit, and revised language has been included in the permit.

Comment 22: A commenter noted that under Part II. Stormwater Quality Management Program 1st paragraph Part II, Page II-1, the draft permit states "The requirements of this general permit represent Maximum Extent Practicable (MEP)." The term Maximum Extent Practicable is an undefined term and the EPA has not provided a precise definition of MEP to allow for maximum flexibility in MS4 permitting. This permit adds extra requirements that go above and beyond state requirements in 401 KAR 5:060. These extra requirements limit the MS4 community's flexibility to pick Best Management Practices (BMPs) and place an unjustified financial burden on the MS4 communities. Many provisions of the draft permit are written more as specific enforcement compliance remedies rather than as permit terms that provide the permittee with flexibility in shaping its program elements. It appears that local flexibility is not accommodated by this permit.

Response 22: This general permit requires the permittee to develop a stormwater quality management program that is designed to reduce the discharge of pollutants to the **maximum extent practicable** (MEP). The MEP standard involves applying best management practices that are effective in reducing the discharge of pollutants in stormwater runoff. This requires that the permittee use known, available, and reasonable methods of prevention and control of stormwater discharges. The permit was drafted with the intent to give more specific direction than the previous permit while providing local flexibility. The local flexibility was assured by using the term "effective equivalent". The term "effective equivalent" allows the permittee to use BMPs that are tailored for their communities.

Comment 23: A commenter noted that the many provisions of the permit are written as specific enforcement compliance remedies rather than as permit terms that provide the permittee with flexibility in shaping its program elements. These include mandates on design standards, government organization, and procedures, and timeframes for taking action on enforcement concerns. Former Assistant Administrator for U.S. EPA's Office of Water, Benjamin Grumbles, in a May 22, 2007, letter to the General Accounting Office advised that the MS4 regulations provide for inherent local flexibility to implement locally-derived solutions. It appears that local flexibility is not accommodated by this draft permit. To further expand on the subject, under Part II B. Stormwater Quality Management Program Page II-2 1.Public Education and Outreach b. "the permittee shall utilize as guidance the Stormwater Educational Toolkit developed by the Kentucky Transportation Cabinet with support from the Division of Water, EPA's Non-Point Source Toolbox found at <http://www.epa.gov/nps/toolbox/>, or substitute alternate outreach materials that provide an effective equivalent." This wording should be changed to read "may utilize." Under 40 CFR 122.34 (b) (1) (ii) Guidance: "You may use stormwater educational materials provided by your State, Tribe, EPA, environmental, public interest or trade organizations or other MS4s..." The MS4s should have the flexibility to utilize any and all materials that meet the intent of the regulation. Requirements to utilize specific guidance materials should not be included in the permit.

This also is a guidance tool listed under the *Kentucky Division of Water Phase II Stormwater Quality Management Plan Preparation Guidance* prepared April 2008, PG 6. Under 40 CFR 122.30 (a) "Sections 122.30

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through 122.37 are written in a 'readable regulation' format that includes both rule requirements and EPA guidance that is not legally binding." This permit requirement is attempting to make EPA guidance legally binding.

Response 23: By including the words "provide an effective equivalent" the permit is giving the MS4 communities the flexibility to utilize any and all materials that meet the intent of the regulation.

Comment 24: A commenter noted that Part II B. 1. c. of the permit states: "The permittee shall prioritize public education efforts to focus on priority pollutants impairing or threatening the local waterways." This should not be in the permit or should be reworded as "may prioritize" instead of "shall prioritize". This requirement limits the flexibility of the small MS4 community by making this BMP too specific to Minimum Control Measure (MCM) 1 requirements.

Response 24: The term "priority pollutants" has been changed to pollutants. The purpose of the MS4 program is to reduce pollutants from stormwater runoff or snow melt into the receiving waterbodies. Prioritizing the efforts of the permittee to address the pollutant that is in their local waterway is the intent of this statement and the Division disagrees that it limits flexibility of the MS4 community.

Comment 25: A commenter noted that Part II B. 1. d. states: "The permittee shall demonstrate that the education and outreach efforts are targeted to the appropriate audiences and balanced between policy-makers, local citizens, and other stakeholders." This should not be in the permit because under 40 CFR 122.34 (b) (1) (ii) Guidance: "...EPA recommends that the public education program be tailored, using a mix of locally appropriate strategies, to target specific audiences and communities..."

This permit requirement is of the same context as EPA guidance and should not be in the permit due to under 40 CFR 122.30 (a) "Sections 122.30 through 122.37 are written in a 'readable regulation' format that includes both rule requirements and EPA guidance that is not legally binding." This is also a guidance tool listed under the *Kentucky Division of Water Phase II Stormwater Quality Management Plan Preparation Guidance* prepared April 2008, pg 6. This document was used as educational material guidance for MS4s to prepare the 2008-2013 SWQMP. Therefore, this item of the permit is attempting to make state stormwater material guidance and EPA guidance legally binding.

Response 25: The federal regulations and the identified six minimum control measures in the regulations are very generally stated and it is expected and appropriate for permitting authorities to add specificity through more detailed and measurable requirements, to make performance expectations clearer and make the permits enforceable, as well as ensure that the obligation to reduce pollution to the maximum extent practicable is reflected in the permit. These provisions are consistent with and implement the federal regulatory requirements; as such these provisions do not go beyond federal regulatory requirements.

Comment 26: A commenter noted that under Part II B. 1. e. the permit states: "The permittee shall measure the understanding and adoption of the targeted behaviors among targeted audiences. The resulting measurements shall be used to direct education and outreach resources more effectively, as well as to evaluate changes in adoption of water quality-benefitting behaviors." This should not be a permit requirement but rather a BMP

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that a MS4 community may choose. Under 401 KAR 5:060 (9) (b) (1) and 40 CFR 122.34 (b) (1) you must "Implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and that steps that the public can take to reduce pollutants in stormwater runoff." The federal and state regulations both say implement a public education program to distribute educational materials to the community but it does not say how to implement the program. This item can be listed as an item on a BMP menu, but the small MS4 community should be provided with the flexibility to use this BMP or not implement it. It is the small MS4 community's responsibility to evaluate the effectiveness of their program and adjust BMP's accordingly. The small MS4 community should be allowed flexibility in evaluating its public education and outreach program.

Response 26: The permit has been revised to "The permittee shall measure the targeted audience understanding of their impacts on water quality and the adoption of the behavior changes resulting from the permittee's public education and outreach efforts. The resulting measurements shall be used to direct education and outreach resources more effectively." This statement does not limit the permittee, rather, directs the permittee on how to use the information gathered to address the local target audiences and their behaviors to reduce pollutants in stormwater runoff and to achieve the overall goal of improving water quality.

Comment 27: A commenter noted that with respect to public involvement/participation under Part II Section B.2.c. of the permit, current MS4 programs should be provided at least 60 to 90 days from the effective date of the permit to develop and implement any revised advertising procedures. The proposed thirty days may be too short of a period to both develop and implement such new procedures, especially where city council authorization may be necessary. Also, please confirm that this provision only requires development of the general notification procedures to be used when providing notice of subsequently proposed matters, and does not require that actual notice be given of all program requirements at this time.

Response 27: The permit now contains the suggested sixty (60) days from the effective date of the permit for current MS4 programs to develop and implement any revised advertising procedures.

Comment 28: A commenter noted that Part II B.2.c. of the permit, states: "The permittee shall develop and implement a method of advertising the public involvement opportunities listed above in 2b..." This should not be in the permit as a requirement but rather an item listed in a menu of BMPs for the small MS4 community to select. This permit requirement goes above and beyond what is required by state and federal regulations.

Response 28: The permit also includes alternate methods that provide an effective equivalent which allows the permittee the needed flexibility to comply with the permit.

Comment 29: A commenter noted with respect to Part II, Section B.3. of the permit, relating to illicit discharge detection and elimination, subparagraph e. relating to mapping provides for the location of all known major outfalls to be identified in the annual report for "year two" of the permit.

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Since reporting under Part III.A. appears to be required on a calendar year basis, KDOW should confirm that "year two" of the permit would be 2010, assuming that the general permit is issued in 2009. This would provide the permittees until April 15, 2012, to complete the mapping of major outfalls.

Response 29: The permit has been issued in March 2010. Therefore, the 2010 is year one; 2011 is year two, and the annual report is due during the annual report after year two, therefore, mapping must be completed by April 15, 2012.

Comment 30: A commenter noted with respect to the sanitary sewer line exfiltration provisions under the IDDE program requirements (Page II-5), a concern exists that this provision could be construed too broadly given that sanitary sewer lines are not impervious. Accordingly, this Section should be deleted since any unauthorized source of an illicit discharge must already be addressed as part of the IDDE program, making this section redundant. Alternatively, sanitary sewer line exfiltration should be defined as leakage from sanitary sewer lines caused by defects or breaks in the system and does not include the *de minimis* losses from sewer lines designed and operated consistent with generally accepted engineering practices, such as those in Ten States' Standard.

Response 30: The permit has been revised to clarify the intent of the provision. Although, sanitary sewer discharge is an illicit discharge, the mitigation process is different than a spill or an improper disposal of other pollutants (e.g. oils or paint). Therefore, the division has included a specific method of addressing the discharges from sanitary sewer line exfiltration.

Comment 31: A commenter noted that Part II B.3.b.i. of the permit states: "Procedures for locating priority areas likely to have illicit discharges." This requirement should be removed from the permit. This goes above the minimum control requirements. This proposed provision is taken verbatim from 40 CFR 122.34 (b) (3) (iv) Guidance. This is attempting to make EPA guidance legally binding. Thus, it should be removed from the permit or be reworded to where the program "may include."

Response 31: The federal regulations and the identified six minimum control measures in the regulations are very generally stated and it is expected and appropriate for permitting authorities to add specificity through more detailed and measurable requirements, to make performance expectations clearer and make the permits enforceable, as well as ensure that the obligation to reduce pollution to the maximum extent practicable is reflected in the permit. These provisions are consistent with and implement the federal regulatory requirements; as such these provisions do not go beyond federal regulatory requirements.

Comment 32: A commenter noted that Part II B. 3.b.v. of the permit states: "Procedures for tracing the source of an illicit discharge; including visual inspections, and when necessary, collecting and analyzing water samples and other detailed inspection procedures." This provision should be removed from the permit or be reworded to where this requirement is a "may" and not a "shall." This language is taken from the guidance section in 40 CFR 122.34 (b) (3) (iv). This is attempting to make EPA guidance legally binding. Thus going above and beyond the minimum control measures as required by 40 CFR 122.34.

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- Response 32: The federal regulations and the identified six minimum control measures in the regulations are very generally stated and it is expected and appropriate for permitting authorities to add specificity through more detailed and measureable requirements, to make performance expectations clearer and make the permits enforceable, as well as ensure that the obligation to reduce pollution to the maximum extent practicable is reflected in the permit. These provisions are consistent with and implement the federal regulatory requirements; as such these provisions do not go beyond federal regulatory requirements.
- Comment 33: A commenter noted that Part II B, 3.b.vi. of the permit states: "Procedures for removing the source of the discharge;..." should be removed from the permit or be reworded to where this requirement is a "may" and not a "shall". This provision is attempting to make EPA guidance legally binding, thus going above and beyond the minimum control measures required by 40 CFR 122.34.
- Response 33: The federal regulations and the identified six minimum control measures in the regulations are very generally stated and it is expected and appropriate for permitting authorities to add specificity through more detailed and measureable requirements, to make performance expectations clearer and make the permits enforceable, as well as ensure that the obligation to reduce pollution to the maximum extent practicable is reflected in the permit. These provisions are consistent with and implement the federal regulatory requirements; as such these provisions do not go beyond federal regulatory requirements.
- Comment 34: A commenter noted that Part II B. 3. f. of the permit states: "The permittee shall conduct dry weather screening of representative outfalls. Screenings shall include..." Requirements for dry-weather screening should be removed from the permit, reworded as an item to select in a BMP menu that is provided to the small MS4 community, or be reworded as the permittee may conduct dry-weather screening. This provision, as proposed, is attempting to make EPA guidance legally binding, thus going above and beyond the minimum control measures as required by 40 CFR 122.34.
- Response 34: The federal regulations and the identified six minimum control measures in the regulations are very generally stated and it is expected and appropriate for permitting authorities to add specificity through more detailed and measureable requirements, to make performance expectations clearer and make the permits enforceable, as well as ensure that the obligation to reduce pollution to the maximum extent practicable is reflected in the permit. These provisions are consistent with and implement the federal regulatory requirements; as such these provisions do not go beyond federal regulatory requirements.
- Comment 35: A commenter noted that Part II B. 3. j. of the permit states: "The permittee shall adopt and implement procedures for Illicit Discharge program evaluation and assessment should be removed from the permit, be reworded as an item to select in a BMP menu provided to the small MS4 community, or be reworded as the permittee may adopt and implement procedures for Illicit Discharge program evaluation and assessment. This permit requirement is attempting to make EPA guidance legally binding.
- Response 35: The federal regulations and the identified six minimum control measures in the regulations are very generally stated and it is expected and appropriate for permitting authorities to add specificity through more detailed and measureable requirements, to make performance expectations

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clearer and make the permits enforceable, as well as ensure that the obligation to reduce pollution to the maximum extent practicable is reflected in the permit. These provisions are consistent with and implement the federal regulatory requirements; as such these provisions do not go beyond federal regulatory requirements.

Comment 36: A commenter noted that for Illicit Discharge Detection and Elimination (Part II.B.3.), the addition of more detail would clarify the level of performance necessary to achieve compliance with the terms and provisions of the permit.

3.a. Current MS4 programs are not given a date certain for implementing and enforcing an IDDE Ordinance although newly-designated MS4s are. The commenter recommends clarifying or explicitly stating that current MS4s programs comply with this requirement upon issuance of the permit.

3.e. Existing permittees were required to develop a storm sewer system map showing the location of all outfalls under the conditions of the current permit (Part I.A.3.ii.), and so this information should already be available for reporting purposes. The commenter recommends the permit include a requirement for MS4s covered by the current permit to include this information in the annual report for Year 1 of the proposed permit.

3.f. The commenter recommends the permit include more explicit requirements in identifying milestones or the minimum level of dry-weather screenings. As an example: 20% of the major outfalls per year, with all the outfalls being addressed within the permit term. In addition, the commenter recommends that the permit could require follow-up investigations within a specified timeframe when information resulting from such screenings, inspections, or citizen complaints indicates reason to suspect an illicit discharge.

The commenter also asked the Division to specify that illicit discharge ordinances should include the authority to compel cessation of illicit discharges as soon as possible; and require the submission for approval, and implementation, of a plan and schedule for the elimination of such discharges when it will take longer than ___ (e.g. 10) days.

Response 36: The following responses reference the comments by using the same numbering system:

3.a. The following statement was added to the permit to clarify the permit concerning current MS4 programs requirement to have adopted the IDDE Ordinance. "Current MS4 programs shall implement and enforce this required ordinance or other regulatory mechanism upon issuance of this permit".

3.e. The following statement was added to the permit to clarify the timeframe and the responsibility of the permittee for reporting purposes of the map of major outfalls. "The permittee shall provide the location of all known major outfalls. The outfalls shall be identified in the annual report for Year 2 of the permit; with updates describing any additionally identified major outfalls in each subsequent annual report".

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3.f. A statement was added to the permit to allow more explicit requirements by suggesting a recommended level of effort of twenty percent (20%) of the major outfalls per year. All major outfalls shall be addressed within the permit term. This provision gives the permittee guidance without restricting its efforts.

The permit requires the permittee to submit a corrective action plan in the event of an illicit discharge is detected and needs to be eliminated. This corrective action plan shall be approved by the Division of Water. The schedule for elimination of such discharges will be determined at that time.

Comment 37: A commenter noted that for Construction Site Stormwater Runoff Control (Part II.B.4), the addition for more detail would clarify the terms of permit compliance. The requested additional details are noted below.

4.a. It is not clear as to whether or not current MS4s are expected to already have ordinances in place. If this is the case, 24 months could be a long time for an existing MS4 program to implement and enforce such ordinance/other regulatory mechanism. We recommend clarifying or explicitly stating the timelines for current MS4s to comply with this requirement.

4.a. Among other enforcement authorities, the ordinance could also specify that it will include stop-work authority and consider a specific dollar amount penalty per day authority (e.g., a penalty authority of at least \$--- per violation per day).

4.b.ii We recommend this provision be revised to include an explicit level of effort requirement, such as a percentage and/or timeframe for inspection (rather than "periodic"). For example: all active sites monthly and all new sites within 2 weeks after initiation of land disturbance, or within __ days of citizen complaints and a requirement to establish a hotline for reporting construction and other stormwater problems, etc.

The commenter recommended specifying that only inspections conducted by appropriately trained staff (trained in construction erosion and sediment, plan reviews, and BMP implementation) will count towards minimum inspection frequency requirements.

4.b.iii. The commenter recommended the inclusion of escalating enforcement remedies in the referenced enforcement strategy.

4.b.iv. The commenter recommended the following change: *A procedure must be developed to...and prioritize ~~identify~~ sites for inspection.*

Response 37: The following responses reference the comments by using the same numbering system:

4.a. The following statement was added to the permit to clarify the permit concerning the requirement that current MS4 programs adopt the Erosion Prevention and Sediment Control Ordinance. "Current MS4 programs shall implement and enforce an ordinance or other regulatory mechanism that addresses stormwater runoff from active construction sites that disturb one acre or more and active construction sites less than one acre in size that

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are part of a larger common plan of development or sale, located within the MS4 upon issuance of this permit."

- 4.a. The ordinance is a local issue, and allowing the permittees to establish their own ordinances is essential to have the flexibility that the MS4 program allows.
- 4.b.ii. A statement was added to the permit to allow more explicit requirements by suggesting a recommended level of effort for periodic inspections should be all active sites monthly and all new sites within two (2) weeks after initiation of land disturbance.

The permit requires that the permittee provide training to the employees who will be responsible for the inspecting of the construction sites.

- 4.b.iii. The permit has been revised to include escalating enforcement remedies.
- 4.b.iv. The permit has been revised to the suggested change by the commenter.

Comment 38: A commenter noted that the Fact Sheet on Page 6 states that all permittees must incorporate procedures for tracking the stage of construction into their local programs. Please provide clarification on the meaning of "stage of construction" and what is required to track construction.

Response 38: The term "stage of construction" could not be found in the Fact Sheet. The permit states the permittees must incorporate "procedures for the tracking of the construction occurring within the MS4, inspections, compliance, and enforcement procedures taken, if any;"

Comment 39: A commenter commended KY DOW on a much improved post-construction section over the current permit, particularly with respect to a clear performance standard regarding capturing rainfall. As you know, prior planning and design for the minimization of pollutants in post-construction stormwater discharges is an effective approach to stormwater quality management. Therefore, with the requirements as proposed, the commenter feels that the MS4 communities will be better able to address stormwater discharge issues in new and redeveloped areas over the long run. The permit's inclusion of green infrastructure considerations also supports this goal.

Response 39: DOW appreciates the commenter's support of the approach taken by the permit in addressing Post-Construction Stormwater Management in New Development and Redevelopment.

Commenter 40: *"The proposed local standard will require in combination or alone management measures that are designed, built and maintained to treat, filter, flocculate, infiltrate, screen, evapotranspire, harvest and reuse stormwater runoff, or otherwise manage the stormwater runoff quality. The permittee shall develop, at a minimum, a locally derived water-quality treatment standard that requires new development projects to implement controls to manage the runoff associated with 80% of the estimated annual rainfall on the site."*

A commenter noted that the majority of residential development in unincorporated Hardin County occurs in areas where municipal sewer is

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not available; therefore, on-site septic systems are required which results in a large minimum lot size. Currently, minimum lot size for residential development is 30,000 ft² and under the proposed revisions to the Hardin County Zoning Ordinance, the lot size will be increased to 40,000 ft². Our current regulations for subdivisions in these areas require stormwater control for quantity, but exempts new residential subdivisions having lots 30,000 ft² or larger from quality controls. Given that these subdivisions have large lots, low percent impervious coverage, open swale drainage, and long times of concentration, the water quality needs are minimal and are met onsite in the overland flow and swale systems. Given this information, the commenter requests that residential subdivision with lot sizes of 30,000 ft² or greater be exempt from the water-quality requirements.

Response 40: This specific question will be addressed in a letter to Hardin County, not in the permit reissuance document.

Comment 41: The commenter noted that Part II B.5.c. of the permit states: "...Current MS4 programs shall, within 12 months of the effective date of this permit, develop and submit to the Division of Water, an on-site stormwater quality treatment standard for all new and redevelopment projects. The proposed local standard will require...For projects that cannot meet this water-quality treatment standard, the permittee may adopt two alternatives: off-site mitigation and payment-in-lieu." The commenter noted that this section of the Post-Construction Stormwater Management in New Development and Redevelopment should be removed from the permit for the following reasons:

- Is not economically feasible
- Is going to further damage the failing housing market
- Is going to cause a further slow down in industrial and commercial development which is vital to creating jobs.
- Implies that cities should impose a numeric limit which is not the basis of the Phase II rule but rather Maximum Extent Practicable (MEP) governs the permit.
- Could be interpreted to imply that homeowners must install stormwater runoff quality treatment when they redevelop or build their own house, thus going beyond the scope of the MS4 covering development and redevelopment sites of over one acre or less than one acre which are part of a larger common plan of development or sale since all new development and redevelopment coverage areas are not defined for this requirement of the permit.
- This goes above regulating stormwater discharge associated with small construction activity as defined by 40 CFR 122.26 (15) (i).

Response 41: The federal regulations and the identified six minimum control measures in the regulations are very generally stated and it is expected and appropriate for permitting authorities to add specificity through more detailed and measurable requirements, to make performance expectations clearer and make the permits enforceable, as well as ensure that the obligation to reduce pollution to the maximum extent practicable is reflected in the permit. These provisions are consistent with and implement the federal regulatory requirements; as such these provisions do not go beyond federal regulatory requirements.

Comment 42: The commenter noted under 40 CFR 122.34(b) (5) Post-Construction Stormwater Management in New Development and Redevelopment, the small MS4 community "must develop, implement, and enforce a program to

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address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan on development or sale, that discharge into your small MS4. Your program must ensure that controls are in place that would prevent or minimize water quality impacts". The above federal regulation is the standard for post-construction. The small MS4 community must address stormwater runoff, but it does not say how to do it thus allowing the MS4 the flexibility to choose how to do it. To control 80% of the estimated annual rainfall on the site should not be suggested or implied in this permit. If a detention requirement is suggested as guidance, it should be based on a design stormwater existing quantitative data exists for a geographical area not to the exact site. A stormwater quality treatment standard is not the objective of this minimum control measure and not even mentioned in 40 CFR 122.34 (b) (5) (iii) Guidance.

Response 42: The federal regulations and the identified six minimum control measures in the regulations are very generally stated and it is expected and appropriate for permitting authorities to add specificity through more detailed and measurable requirements, to make performance expectations clearer and make the permits enforceable, as well as ensure that the obligation to reduce pollution to the maximum extent practicable is reflected in the permit. These provisions are consistent with and implement the federal regulatory requirements; as such these provisions do not go beyond federal regulatory requirements.

Comment 43: The commenter noted Part II B. e. states of the permit: "The permittee shall develop and implement project review, approval, and enforcement procedures for new development and redevelopment projects that disturb greater than one acre, and projects less than one acre that are part of a larger common plan of development or sale..." This requirement should be removed from the permit as well as its additional items. With projects less than one acre that are part of a larger common plan of development or sale this requirement is unattainable, unrealistic, uneconomic and not practical. This provision could be interpreted to require homeowners to submit site plans for home remodeling and minor site work. This requirement of the permit is a paraphrased form of the guidance listed in 40 CFR 122.34 (b) (5) (iii). This permit requirement is attempting to make EPA guidance legally binding.

Response 43: The federal regulations and the identified six minimum control measures in the regulations are very generally stated and it is expected and appropriate for permitting authorities to add specificity through more detailed and measurable requirements, to make performance expectations clearer and make the permits enforceable, as well as ensure that the obligation to reduce pollution to the maximum extent practicable is reflected in the permit. These provisions are consistent with and implement the federal regulatory requirements; as such these provisions do not go beyond federal regulatory requirements.

Comment 44: The commenter noted Part II B. f. of the permit states: "The permittee shall require all new development and redevelopment to establish and enter into long-term maintenance agreement and maintenance plan approved management practices for property owners..." The commenter suggests that Item f should be reworded to say that according to 40 CFR 122.34 (b) (5) (ii) (C) "the MS4 shall ensure adequate long-term operation and maintenance of BMPs."

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- Response 44: The permit was not revised to the commenter's suggestion. The division believes the original language is more appropriate for enforcement of the permit.
- Comment 45: The commenter noted Part II B. 5. f. of the permit states: "and also account for transfer of responsibility in leases and/or deed transfers." The commenter requests clarification. To account for transfer of responsibility is too broad a term and needs more definition. This requirement seems to go above and beyond the minimum control measure.
- Response 45: The provision has been revised to say "and also maintain records of transfers of responsibility in leases and/or deed transfers". This revision should clarify the division's intent for this provision.
- Comment 46: A commenter supports the "off-site" mitigation and "payment-in-lieu" options established under Part II. Section B.5. for post-construction programs. It provides opportunities for increased environmental benefit, especially for redevelopment sites on small lots in urbanized areas. Please clarify the scope of a "public stormwater project" as that term is used in the section. KLC supports a broad interpretation of that term. It should not be limited to projects on city-owned property.
- Response 46: It is not the intent of this permit to limit projects to city-owned property. However, the permittee should obtain permission from property owners before commencing any stormwater projects.
- Comment 47: A commenter noted that under the post-construction stormwater management requirements for development and redevelopment, subparagraph d. requires the permittee to review and evaluate municipal policies relating to building codes or other local regulations with a goal of identifying regulatory and policy impediments to the installation of green infrastructure. As this is a new requirement, a schedule of compliance needs to be provided for this task.
- Response 47: The permit has been revised to allow twelve (12) months for the permittee to review and evaluate municipal policies that impede the installation of green infrastructure.
- Comment 48: A commenter noted that under subparagraph h. of the post-construction stormwater management provisions for new development and redevelopment, the permittee is to inspect a representative number of installed BMPs annually with a goal of completing inspection of all BMPs within the MS4 during the permit cycle. "BMP" is broadly defined as including "activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce pollution" and can include structural and non-structural controls. Accordingly, the term is extremely broad and a goal of inspecting all BMPs within an MS4 within the permit cycle is wholly unrealistic. Because every culvert headwall, berm, or inlet could be considered a structural stormwater management facility, this paragraph should be limited to those structures that are considered to be significant.
- Response 48: The provision has been revised to distinguish the types of BMPs that shall be inspected (e.g. the BMPs that were designed, built and maintained to treat, filter, flocculate, infiltrate, screen, evapo-transpire, harvest and reuse stormwater runoff, or otherwise manage the stormwater runoff quality).

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- Comment 49: A commenter noted that under subparagraph i. of the post-construction stormwater management provisions for new development and redevelopment, the permittee must demonstrate compliance with requirements for post-construction controls by providing a summary of types of BMPs installed. Please clarify that this does not require the permittee to keep a list of all BMPs.
- Response 49: The permit requires that the permittee keep a list of the post-construction BMPs that have been reviewed for new and redevelopment projects. The list shall contain the following information: location, owner, date and results of inspections of said BMPs, acknowledgement of any necessary agreements for required maintenance and enforcement. This provision should be easy to accomplish if the permittee is reviewing the post-construction controls that are being implemented along with the construction plan review. A summary of this information should be included in the annual report (i.e. reviewed plans for a retention pond and parking lot with strips of pervious pavement for new retail site, along with location, owner, number of inspections, and any agreements for maintenance if required).
- Comment 50: A commenter noted that Part II B.6.b of the permit states: "The O&M program must include employee training to prevent and reduce stormwater pollution resulting from activities such as parks and open space maintenance, fleet, and building maintenance, new construction and land disturbances, stormwater system, and green infrastructure. The permittee is encouraged to utilize training materials that are available from the EPA, the Division of Water, and other organizations." The commenter suggests that in order to be consistent with 40 CFR 122.34 (b) (6) (i) the phrase "stormwater system" should be revised to say "stormwater system maintenance." The commenter also noted that the term "green infrastructure" does not appear anywhere in 40 CFR 122.34 (b) (6) and therefore should not be included as a requirement in this permit.
- Response 50: The Division agrees with the revision of "stormwater system" to "stormwater system maintenance", therefore, "maintenance" has been added. However, the division does not agree with the removal of the words "green infrastructure" as it may limit some MS4 communities that have incorporated green infrastructure into their stormwater system. A revision of adding "maintenance" at the end of green infrastructure should clarify the intent of this paragraph of the permit.
- Comment 51: A commenter suggested that Part II B.6.c of the permit should be reworded as "the O&M program may include, where appropriate..." This item should be either a "may" or not in the permit at all. This provision is attempting to make EPA guidance legally binding, thus going above and beyond the minimum control measures as required by 40 CFR 122.34.
- Response 51: The federal regulations and the identified six minimum control measures in the regulations are very generally stated and it is expected and appropriate for permitting authorities to add specificity through more detailed and measurable requirements, to make performance expectations clearer and make the permits enforceable, as well as ensure that the obligation to reduce pollution to the maximum extent practicable is reflected in the permit. These provisions are consistent with and implement the federal regulatory requirements; as such these provisions do not go beyond federal regulatory requirements.

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- Comment 52: A commenter noted that with respect to the O&M program for municipal operations referenced on Page II-10, the Division should clarify that the inventory strictly relates to municipal operations. Accordingly, "streets, roads, and highways" that are owned or operated by an entity other than the MS4 are not within the scope of this provision.
- Response 52: The term "from municipally-owned or operated" has been added to term concerning streets, roads, highways, municipal parking lots, maintenance and storage yards, and fleet maintenance shops with outdoor storage areas.
- Comment 53: A commenter recommended more specificity in terms of the level of performance necessary to achieve compliance with the terms and provisions of the permit. For example, we recommend that subsection a. should clarify the timeframes for full implementation for new MS4s and existing MS4s. In addition, we recommend striking the term, "as appropriate" from the first sentence of subsection c. as it implies that the stated requirement may not be necessary.
- Response 53: The term "as appropriate" has been removed from the first sentence of subsection c.
- Comment 54: A commenter suggested that Part II D. Total Maximum Daily Loads and Impaired Waters, Page II-11 thru Page II-12, the entire section, should be removed from the permit in its entirety. 40 CFR 122.34 (e)(1) states: "You must comply with any more stringent effluent limits in your permit, including permit requirements that modify, or are in addition to, the minimum control measures based on an approved total maximum daily load (TMDL) or equivalent analysis. The permitting authority may include such more stringent limitations based on a TMDL or equivalent analysis that determines such limitations are needed to protect water quality." This section of the permit goes is proposing more stringent requirements that go above and beyond the six minimum controls. The reasons for removal of this section are as follows:
- Under Federal Register/Vol. 64, No. 235./Wednesday, December 8, 1999 rules and Regulations IV. Regulatory Requirements E. Regulatory Flexibility Act, as amended by the Small Business Regulatory Enforcement Fairness Act of 1986 (SBREFA), 5 USC 501 et seq. pg. 68801 "...today's rule includes a number of provisions designed to minimize any significant impact on small entities. (See Appendix 5)." Appendix 5 to preamble-Regulatory Flexibility for Small Entities A. Regulatory Flexibility for Small Municipal Storm Sewer Systems (MS4s) pg 68811 "Analytic monitoring is not required." Therefore, the analytical monitoring requirements of this permit should be removed.
 - Monitoring requirements are too costly for a small Phase II community.
 - This permit requirement is more stringent than federal requirements.
 - This is an attempt to by the permitting authority to have the small Phase II communities serve as data collectors for TMDL streams.
- Response 54: Per the regulations cited under 40 CFR 122.34 (e) (1), KDOW has the authority to impose the requirements listed under Part II D (TMDL and Impaired Waters). (See response to comment #25). While the data collected under this section of the permit may be useful for future TMDL development, this was not the motivation behind the addition of

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monitoring requirements. Rather, a monitoring program is necessary for MS4s and KDOW to evaluate the progress of MS4 stormwater programs in monitoring BMP performance and in meeting water quality goals. In this case where a TMDL has been approved, the permit conditions must be consistent with the assumptions and requirements of wasteload allocations in applicable TMDLs (See 40 CFR 122.44 (d) (1) (vii) (B)).

The language cited from Appendix 5 to Preamble-Regulatory Flexibility for Small Entities provided flexibility to small MS4s during the time the regulations were finalized. The context of that statement describes the flexibility provided to small MS4s while small entities fully develop and implement their stormwater programs. By now, small MS4s should have established their stormwater programs, and therefore it is reasonable for communities to monitor their discharge to ensure that the obligation to reduce pollution to the maximum extent practicable is achieved. This requirement does not go beyond the federal regulatory requirements. In addition, the permit provides some flexibility to small MS4s in designing their own monitoring program to better maximize resources and potentially prioritize monitoring efforts through a well-developed monitoring strategy.

Comment 55: Developing and implementing monitoring programs for many of the potentially selected pollutants is beyond the scope, ability, and financial resources of most of the MS4 communities. The information provided on the KDOW website on Water Quality Monitoring Standard Operating Procedures and Water Sampling Quality Assurance Plan (QAP) is extensive and complicated. It is difficult to review and decipher these documents to determine what will be required for each jurisdiction. It appears that many pollutants will require sampling frequency, protocol and parameters that will require hiring an outside environmental consultant and a qualified laboratory. Sampling requirements may also include wet weather sampling, which would result in the environmental consult needing to be "on-call" to respond. Limited qualified environmental consultants available in certain areas may create a problem of availability to respond. Frequency and duration of sampling requirements is also an unknown but appears to have the potential to be required multiple times during the year and to extend over multiple years. It is also unclear once this information is collected, what potential corrective measures may be required.

It appears that perhaps a more straightforward approach that would be more inline with the intent of the MS4 would be a program that follows:

1. Identify the known TMDLs watersheds,
2. Identify BMPs that are most effective for each of the TMDLs.
3. Create a program to utilize the selected BMPs as practicable in the TMDL watersheds
4. Allow KDOW to continue their established monitoring program for the TMDLs, and
5. Utilize the resultant monitoring data to evaluate the effectiveness of the program and provide for modification as necessary.

Response 55: The monitoring program for the waterbodies with approved TMDLs is not for delisting purposes, however, the data could be used for delisting if the appropriate quality assurance procedures are utilized and quality assurance plans are implemented. The purpose for the monitoring by the MS4 program is to evaluate the effectiveness of the educational and outreach programs, the effectiveness of any BMPs that have been implemented and to measure changes in behavior in the citizenry that

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will ultimately provide water quality protection. Further, depending on what the data shows, an MS4 may need to re-evaluate its BMPs or implement additional control measures to achieve the TMDL goals.

Comment 56: There does not appear to be enough coordination between the proposed draft MS4 general permit and the development of TMDLs. Specifically, the permit should include monitoring requirements that will assist in the development of TMDLs, and permit limits that will improve the water quality of the receiving waters.

Response 56: The permittee is not required to provide information that assists in the development of TMDLs. The TMDLs are developed by DOW staff with information collected by DOW staff using our Standard Operating Procedures for sample collection and analyses. The permit includes provisions to protect the water quality of the receiving stream.

Comment 57: A commenter noted that the draft permit fails to adequately protect waters on the 303(d) list, and the final permit must contain conditions that require MS4s to identify the applicable water quality standards for each receiving waterbody, and ensure that discharges shall not cause or contribute to an exceedance of that water quality standard. The 303(d) list is produced every other year in Kentucky, and reports those streams and waters identified as impaired for one or more pollutants that do not support one or more designated uses, thus requiring development of a Total Maximum Daily Load (TMDL).

The TMDL is one of several tools available to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (CWA section 101(a)). The TMDL reflects the total pollutant load a waterbody can receive, and yet still meet water quality standards for that water. Unfortunately, listing impaired waters and establishing TMDLs does not fix the underlying impairment issue. Rather, the permitting authority must implement the Waste Load Allocations (WLAs) included in a TMDL through enforceable water quality-based discharge limits in KPDES permits.

According to the Final 303(d) Report, a number of waters in the Commonwealth have TMDLs that are currently being developed. The draft permit does not specifically address waters that have TMDLs in development. However, once the TMDLs for these waters are approved, the permit must address the pollutants of concern for the impaired water bodies. Therefore, the final permit must, at the very least, ensure that discharges will not cause or contribute to an exceedance of applicable water quality standards for these receiving waters. Specifically, for each waterbody that receives a discharge from the MS4, the permittee must identify the water quality standards applicable to the particular waterbody, and ensure that discharges do not violate the applicable water quality standards. Once these TMDLs are approved, additional restrictions will be required.

Response 57: The permit addresses the permittees responsibilities in discharging to waters with approved TMDLs, and waters that have TMDLs that will be approved during the permit term, including requiring a monitoring program to be set up by the end of the permit term for all MS4 programs. The permit also requires the MS4 with an approved TMDL to implement the TMDL to the Maximum Extent Practicable. The Division disagrees that the draft permit fails to adequately protect waters on the 303(d) list.

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Comment 58: A commenter noted that the draft general permit and its SWQMP requirement must address how the discharge of pollutant(s) to impaired waters without an approved TMDL identified as causing the impairment will be controlled such that they do not cause or contribute to the impairment. The draft permit states:

For impaired waters that lack a TMDL, the permittee shall evaluate its Best Management Practices in the SWQMP with respect to any *new or expanded* MS4 discharges for pollutants of concern to ensure effectiveness of post construction control requirements to achieve the MEP standard. (emphasis added, Draft Permit, p. II-12).

If there is a discharge from the MS4 to impaired waters without an approved TMDL, the permittee must address in its SWQMP and annual reports how the discharge of pollutant(s) identified as causing the impairment will be controlled such that they do not cause or contribute to the impairment. The requirement in the draft permit that the discharges be "new or expanded," is overly restrictive. Specifically, the permit must require the permittee to evaluate all discharges to impaired waters, and identify additional or modified BMPs in its SQWMP to ensure that discharges do not cause or contribute to the impairment. Finally, these BMPs must be implemented expeditiously within an enforceable time frame.

Response 58: The draft general permit does address the discharge of pollutants to impaired waters without an approved TMDL. The permit requires the MS4 program to focus on the impairments of the local waterbodies and to utilize the Best Management Practices established in the SWQMP to reduce the impact on the receiving streams.

Comment 59: A commenter noted that the permit must require that for discharges to impaired waters with a newly approved TMDL, that the permittee must implement specific BMPs to support achievement of the wasteload allocations (WLAs) within a specified and enforceable time frame. The draft permit states:

If a TMDL is approved for any impaired waterbody into which the permitted MS4 discharges and for which the MS4 causes or contributes to water quality impairment(s), KDOW will review the TMDL and applicable wasteload allocation(s) to determine *whether* the TMDL allocates pollutant reductions from stormwater discharges. If current discharges from the MS4 are not meeting TMDL allocations, KDOW will notify the permittee of that finding and require that the SWQMP identified in Part II of this general permit be modified *...within a reasonable timeframe...* (emphasis added, Draft Permit, p. II-11). Since NPDES-regulated stormwater discharges must be addressed by the wasteload allocation component of a TMDL,¹ it is unlikely that stormwater discharges would be allowed to go unchecked. Moreover, EPA states that "NPDES permits must contain effluent limits and conditions consistent with the requirements and assumptions of the wasteload allocations in the TMDL."² Therefore, the permit must reflect that these effluent limits and conditions will be included in any modified permit and SWQMP. In addition, the language in the draft permit stating that KDOW will require that the SWQMP be modified "within a reasonable timeframe"

¹See Memo from Robert Wayland, EPA's Director of OWOW, to EPA Water Division Directors, 11/22/02

² Id.

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is unacceptable. If there is a newly approved TMDL, and the stormwater discharges are not meeting TMDL allocations, KDOW must require that the SWQMP be modified to address these discharges. Furthermore, it is imperative that the permit reflect a specified and enforceable timeframe within which the modifications would be made. The permit, as written, is unenforceable.

Response 59: The permit was revised to require the permittee to implement the TMDL to the maximum extent practicable (MEP) when the MS4 discharges into an impaired waterbody for which the MS4 causes or contributes to water quality impairment(s).

Comment 60: A commenter noted the permit must adequately address discharges to waterbodies with approved TMDLs. As written, the draft permit does not address existing approved TMDLs. Rather, the permit only addresses situations where a TMDL is approved during the life of the permit, or if there are discharges to impaired waters that lack a TMDL. The permit must be revised to contain language requiring BMPs to support achievement of the WLAs associated with any existing TMDLs.

Response 60: Part II Page II-11, D.1. Total Maximum Daily Loads (TMDLs) addresses existing approved TMDLs. In the permit, under Part II Page II-11 D.2. Evaluation of TMDL allocations addresses when a TMDL is approved during the life of the permit. The permit has been revised to clarify the statements concerning TMDLs.

Comment 61: A commenter noted that under Part II.D.4. relating to Impaired Waters, the evaluation for new or expanded MS4 discharges should only apply to pollutant of concern "that substantially change the discharge." This provision, which was included in LFUCG's Phase I MS4 permit, is necessary to prevent MS4s from having to evaluate *de minimis* changes in MS4 discharges, such as those caused by minor developments in existing urbanized areas (e.g., new driveway to a home). A sentence should also be added at the end of subparagraph 4. that provides "evaluation may be conducted on a watershed basis."

Response 61: The commenter's suggested sentence that provides "evaluation may be conducted on a watershed basis" has been incorporated into the permit.

Comment 62: A commenter is pleased to see that the permit includes additional requirements for waters with an approved TMDL or identified as being impaired on Kentucky's Section 303(d) list. However, the commenter recommends that some of the requirements already specified as part of the stormwater quality management plan be included in the permit itself.

D.1. We recommend that the reference to a "reasonable timeframe" be clarified in terms of months/years.

D.2. Are we correct in assuming that this requirement also applies to MS4s discharging to waters with an existing TMDL?

D.4. Permittees should be required to identify impaired waters into which the MS4 discharges. Resulting listings, as well as the permittees' evaluation of its BMPs in light of such impairments, should be included in the SWQMP. At a minimum, this information should be updated in the annual report following the finalization of Kentucky's Section 303(d) list of impaired waters (every two years).

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Response 62: The following responses reference the comments by using the same numbering system:

D.1. The provision has been revised to clarify the intent of the permit.

D.2. The assumption made by the commenter is correct; the requirement is applicable to MS4s discharging into waters with an existing TMDL.

D.4. The suggested requirement has been incorporated into the permit.

Comment 63: In addition to the listed elements of an effective monitoring plan, a commenter recommends that the permit include a specification of the flow regimes under which monitoring should be conducted.

Response 63: Specifics of each MS4 program's monitoring plan will be reviewed and finalized as they are submitted to the division for approval, at which time the specification of flow regimes under which monitoring should be conducted will be addressed.

Comment 64: Part II E. of the permit requires the development of an MS4 program monitoring plan. Given the extent of new provisions established for MS4 programs under the permit, it is appropriate to provide the full permit term for proposing a monitoring plan. However, in-stream biological communities may be impaired for many reasons other than MS4 discharges. Therefore, any monitoring programs should focus strictly on pollutant impacts that can be documented to be related to MS4 discharges. MS4 control authorities should have the option of establishing monitoring programs that focus strictly on the effectiveness of MS4 controls. For these reasons, municipalities should not be required to address all four elements in a monitoring plan.

Response 64: The four elements listed in the monitoring plan are not all required; they are options that may be employed to make an effective monitoring program. The permit says that an effective MS4 program monitoring plan should include one or more of the four options.

Comment 65: A commenter suggested the whole section of the permit Part II E. Pages II-12 thru Page II-13, concerning the development of an MS4 program monitoring plan, should be removed in its entirety and reworded to state that according to 40 CFR 122.34 (g) (1) "You must evaluate program compliance, the appropriateness of your identified best management practices, and progress towards achieving your identified measurable goals." This section should also be removed for the following reasons:

- Under Federal Register/Vol. 64, No. 235. /Wednesday, December 8, 1999 rules and Regulations IV. Regulatory Requirements E. Regulatory Flexibility Act, as amended by the Small Business Regulatory Enforcement Fairness Act of 1986 (SBREFA), 5 USC 501 et seq. pg. 68801 "...today's rule includes a number of provisions designed to minimize any significant impact on small entities. (See Appendix 5)." Appendix 5 to preamble-Regulatory Flexibility for Small Entities A. Regulatory Flexibility for Small Municipal Storm Sewer Systems (MS4s) pg 68811 "Analytic monitoring is not required." Therefore, the analytical monitoring requirements of this permit should be removed.
- Monitoring requirements are too costly for a small Phase II community.

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- This section of the permit is proposing more stringent requirements that go above and beyond the six minimum controls.
- It is not consistent with federal regulations.
- The proposed MS4 program monitoring plan items address monitoring of pollutants, not evaluate program compliance.
- Monitoring specific pollutants is not part of the six minimum controls.

Response 65: Currently, the required monitoring program in the proposed permit is only for waters with an approved TMDL where stormwater runoff causes or contributes to water quality impairments. Further, the permit requires the permittee to develop a monitoring program before the end of the permit cycle that would evaluate the effectiveness of the MS4 program and provides feedback for the permittee to change or improve the stormwater quality management program appropriately. The permit then gives options of how the monitoring program could be structured. As presented before in these responses to comments the division has the authority to require the monitoring program. Please utilize the time afforded to the permittees to plan and budget for the monitoring requirement that will occur during the next permit cycle.

Comment 66: A commenter suggested that Part II G. Fiscal Requirements Page II-13 should be removed from the permit. This is an attempt to establish a benchmark funding requirement for this permit. Funding this program is going to vary with different small Phase II communities as they are going to have different needs based on various factors such as topographic, geographical, climatic, financial, city tax base, maintenance responsibilities, political partnerships, etc. Furthermore, under 40 CFR 122.35, an operator of a small MS4 is allowed to co-permittee with another municipality or rely on another entity to satisfy a minimum control measure. Therefore, the small Phase II community should not be responsible for funding if a partnership or agreement exists for another entity to satisfy permit requirements. The small Phase II community is responsible for compliance with permit obligations if the other entity fails to implement the control measure but may or may not be responsible for the funding.

Response 66: The funding requirement was not removed from the permit; the requirement is general enough that it should not restrict the permittee from becoming co-permittees or various factors such as topographic, geographical, climatic, financial, or any of the other concerns of the commenter.

Comment 67: A commenter recommended that this provision include additional language to clarify that the permittees should annually report their accounting of stormwater-related budgets, costs, and staffing resources.

Response 67: The MS4 program does not require permit terms or conditions relating to submittal of stormwater budgets or estimated cost of activities. KPDES permittees are required to implement the controls and limitations set forth in the permit, which generally requires the municipality to fund the program in some manner. The permit requires funding to be established and maintained to ensure requirements of the permit are met. Any opportunity to comment on the MS4 program's budgets for stormwater will need to be raised during their annual budgeting process. Therefore, submissions of budgets by the MS4 programs are not an appropriate condition of a KPDES permit.

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Comment 68: A commenter suggested that Part III. Reporting A. Reporting Requirements be rewritten to reflect 40 CFR 122.34 (g) (3) Reporting. The federal regulations should dictate what is required for reporting requirements, not items that go above and beyond federal regulations and the six minimum controls.

Response 68: It is the permitting authority's (DOW) discretion to request reports from the permittees. Therefore, the permittee will be required to submit a report of the activities and actions to implement the MS4 program and this general permit on an annual basis based on the schedule in Part III A. of the permit.

Comment 69: A commenter asked for clarification with respect to Part III. A., Reporting, asking KDOW to confirm the reporting is to occur on a calendar year basis. The commenter suggests that Section A.1., be revised to read "...no later than July 15 of the year following the calendar year period covered by the report."

Response 69: The suggested time frame for reporting has been revised to say "calendar year period covered by the report".

Comment 70: A commenter noted the following suggested changes and needed clarifications to the NOI

- Under Section II for the Storm Sewer Map, the map should only identify "known major" outfalls to be consistent with the permit. It should not be necessary to identify "all" storm sewer outfalls in the NOI.
- Under Section III relating to Minimum Controls and BMPs, please clarify in the NOI that an MS4's existing SWQMP and/or annual report may be submitted with the NOI to satisfy the requirement to submit a report of BMPs being implemented. It should also be recognized that existing SWQMPs will be updated consistent with permit compliance schedules.
- Appendix A should also include a section to identify co-permittees.

Response 70: The commenter's suggested changes have been made to the Notice of Intent.

Any person aggrieved by the issuance of a permit final decision may demand a hearing pursuant to KRS 224.10-420(2) within thirty (30) days from the date of the issuance of this letter. Any demand for a hearing on the permit shall be filed in accordance with the procedures specified in KRS 224.10-420, 224.10-440, 224.10-470, and the regulations promulgated thereto. The request for hearing should be submitted in writing to the Environmental and Energy Cabinet, Office of Administrative Hearings, 35-36 Fountain Place, Frankfort, Kentucky 40601 and the Commonwealth of Kentucky, Environmental and Energy Cabinet, Division of Water, 200 Fair Oaks Lane, Frankfort, Kentucky 40601. For your record keeping purposes, it is recommended that these requests be sent by certified mail. The written request must conform to the appropriate statutes referenced above.

If you have any questions regarding these responses, please contact Abigail Rains, SWPB Branch, at (502) 564-8158, extension 4891.

Further information on procedures and legal matters pertaining to the hearing request may be obtained by contacting the Office of Administrative Hearings at (502) 564-7312.

Sincerely,

E-Signed by Sandy Guzesky
VERIFY authenticity with ApproveIt 


Sandra Guzesky, Director
Division of Water

SLG:JMB:ALR